PB85-249738

Summary of State VOC (Volatile Organic Compound) Regulations

(U.S.) Environmental Protection Agency
Research Triangle Park, NC

Apr 85

U.S. Department of Commerce
National Technical Information Service
NTIS

PB85-249738

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/2-85-003
April 1985

Air

EPA

Summary of State VOC Regulations

EPA-450/2-85-003

Summary of State VOC Regulations

Control Programs Development Division

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

April 1985

DISCLAIMER

This report was furnished to the U.S. Environmental Protection Agency by GCA Corporation, GCA/Technology Division, Chapel Hill, North Carolina 27514, in fulfillment of Contract No. 68-02-3892, Work Assignment No. 10. This document has been reviewed by the Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Environmental Protection Agency. Every attempt has been made to make this publication as complete and accurate as possible; however, it does not constitute a legal compilation of Federally approved regulations. The reader should refer to The Code of Federal Regulations and to the appropriate State or local regulations for official interpretations.

Publication No. EPA-450/2-85-003

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-450/2-85-003		PB85 249738/AS

4. TITLE AND SUBTITLE	5. REPORT DATE
Summary of State VOC Regulations	April 1985
	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Office of Air Quality Planning and Standards U.S. Environmental Protection Agency Research Triangle Park, North Carolina 27711	10. PROGRAM ELEMENT NO.
	11. CONTRACT/GRANT NO. 68-02-3892
12. SPONSORING AGENCY NAME AND ADDRESS Director, Office of Air Quality Planning and Standards Office of Air and Radiation U.S. Environmental Protection Agency Research Triangle Park, North Carolina 27711	13. TYPE OF REPORT AND PERIOD COVERED
	14. SPONSORING AGENCY CODE EPA/200/04

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Clean Air Act Amendments of 1977 require each State in which there is an ozone nonattainment area to adopt and submit a revised State Implementation Plan (SIP) that meets the requirements of Section 110 and Part D of the Act. The SIP must contain volatile organic compound (VOC) regulations that reflect the application of Reasonably Available Control Technology to stationary sources for which Control Technique Guidelines (CTGs) published by the U.S. Environmental Protection Agency (EPA) apply. This document summarizes the VOC regulations States have adopted that apply RACT to 29 industrial source categories for which EPA has published CTGs. In some cases, States have developed regulations for stationary sources where CTGs do not apply. These regulations also have been summarized. In most cases, the State regulations summarized are current as of August 1, 1984. There are, however, some regulations included in the State summaries, such as some of the VOC regulations for California, that are current as of January 1, 1985.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air pollution regulations Volatile organic compounds Reasonably Available Control Technology Control Technique Guidelines	Air Pollution Control	13B

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS (This Report)	21. NO. OF PAGES
Release unlimited. Available through NTIS.	Unclassified	426
	20. SECURITY CLASS (This page) Unclassified	22. PRICE A34.95

EPA Form 2220-1 (9-73)

INTRODUCTION

The Clean Air Act Amendments of 1977 require each State in which there is an ozone nonattainment area to adopt and submit a revised State Implementation Plan (SIP) that meets the requirements of Section 110 and Part D of the Act. The SIP must contain volatile organic compound (VOC) regulations that reflect the application of Reasonably Available Control Technology (RACT) to stationary sources for which control technique guidelines (CTGs) published by the U.S. Environmental Protection Agency (EPA) apply. This document summarizes the VOC regulations States have adopted that apply RACT to 29 industrial source categories for which EPA has published CTGs. In some cases, States have developed regulations for stationary sources where CTGs do not apply. These regulations also have been summarized. In most cases, the State regulations summarized are current as of August 1, 1984. There are, however, some regulations included in the State summaries, such as some of the VOC regulations for California, that are current as of January 1, 1985.

The 29 industrial source categories for which EPA has issued CTGs have been divided into three groups depending on the CTG publication date. Group I includes 15 source categories for which CTGs were published prior to January 1978. Group II includes 9 source categories for which CTGs were published between January 1978 and January 1979. Group III includes 5 source categories for which the CTG publication date was after January 1979. Table 1 lists the source category, CTG, EPA Number, and NTIS Number for the 29 source categories.

As mentioned above some States have adopted regulations for non-CTG sources. Examples of these regulations include case-by-case RACT provisions, emissions limitations and/or equipment and operating requirements for architectural coatings, aerospace coatings, semiconductor manufacturing, and ethylene production plants.

Table 2 presents the scope of each State's regulation of VOCs for Group I, II, and III CTG source categories as well as non-CTG sources. The format of Table 2 is designed to facilitate comparison of VOC regulations on a State-by-State basis. The symbols used in each category represent the status of the VOC regulation for each source type within each State. The key symbols used in Table 2 are as follows:

- ● - an EPA approved regulation exists for the source category,
- ○ - no EPA approved regulation exists for the source category,
- ⊖ - no regulation exists because there are no sources in the nonattainment area,

■ - no regulation exists because all sources in the nonattainment area are less than 100 TPY,

□ - regulations are under development for this source category,

☆ - regulations for this source category are pending approval by EPA,

★ - regulations for this source category are deficient and are not consistent with the CTG.

Table 3 summarizes the VOC regulations required by States according to area type and regulation category. Nonextension urban areas not currently requiring revised SIPs are summarized in Table 4; and States with their corresponding rural nonattainment areas are presented in Table 5. States listed in Tables 4 and 5 only have the basic requirements to control stationary sources in CTG Groups I and II with an applicability cutoff of 100 tons per year. Urbanized areas that did not attain in 1982 and have requested extensions from 1982 to 1987 are listed in Table 6. These states, as indicated in Table 3, are required to have Groups I, II, III, other 100 tons per year, and additional measures VOC control. The 1984 and 1985 SIP call areas are presented in Tables 7 and 8, respectively. These State or local agencies are required to submit revised SIPs during the subject year because of nonattainment of sources requiring VOC control. Table 9 lists the states classified as attainment areas for ozone. Table 10 provides a listing of VOC compounds exempted from regulation by the States.

Of the 50 State and 5 local air pollution regulatory agencies surveyed by this study, 13 States are classified as ozone attainment areas and therefore do not require CTG Groups I, II, or III regulations. The remaining 42 State/local agencies all have some level of VOC regulatory activity. The extent of regulating VOC emissions by these agencies was found to vary from controlling VOC emissions for Group I sources from 3 source categories to controlling VOC emissions from all (15) source categories. State and local agency regulation of CTG Group II source categories varied from controlling none of the potential VOC emission sources to all. There were significantly more State and local VOC regulations requiring EPA approval, revisions to conform with CTGs, or under development in Group II than were found in Group I. State and local regulations for CTG Group III source categories were found to vary significantly on a national basis. Only six (14 percent) of the State or local agencies were found to have any Group III rules. One State agency was found to be developing regulations for all industrial source categories in CTG Group III. State and local regulation of other VOC sources also varied. Of the 42 agencies requiring some VOC control, 20 (48 percent) have regulations limiting VOC emissions from 1 to 14 industrial sources. Those "other" sources included, for example, RACT case-by-case, architectural coatings, ethylene production plants, aerospace coatings, and bubbles.

As previously stated, the 1977 Federal Clean Air Act required States to develop and submit revisions to the State Implementation Plan (SIP) for each ozone nonattainment area to provide sufficient emission reductions to demonstrate attainment of the ambient standard for ozone. The U.S. Environmental Protection Agency (EPA) has specified as required by the Clean Air Act that the SIP revisions for areas designated as not attaining the ozone standard should contain, as a minimum, regulations for controlling VOC emissions from stationary sources. These regulations must provide for the implementation of RACT. To assist the States in defining RACT, the EPA's Office of Air Quality Planning and Standards (OAQPS) prepared a series of VOC CTG documents (Groups 1, II, and III). Individual stationary source categories are addressed by the documents. Since EPA cannot publish CTGs for all affected VOC source categories, States will have to develop regulations using information sources other than CTGs. States with SIPs showing attainment by the end of 1982 must contain emission control regulations covering CTG Groups I and II. States unable to show attainment of the ozone standard by 1982 were granted extensions for attainment up to 1987. Revised SIPs were required to be submitted to EPA by July 1, 1982. In addition, the 1982 ozone SIP policy required regulation development for Group III CTG categories and for all other non-CTG VOC sources that have a potential to emit 100 tons per year (T/yr) or more. Should a State determine that it cannot attain the ozone standard by December 31, 1987, then extraordinary measures including the control of non-CTG VOC sources less than 100 T/yr will be required. Through the Clearinghouse, experience implementing control programs for these source categories and those in CTG Groups I, II, and III will be shared.

Finally, a number of areas without extensions have been found to not have attained the ozone standard by 1982. These areas will be required to modify their SIPs to include CTG Group III regulations and the other post-1982 SIP requirements. The following tables reflect VOC regulation requirements for state ozone nonattainment areas.

TABLE 1. CONTROL TECHNIQUES GUIDELINES FOR GROUPS I, II, III.[1]

Source Category	Control Techniques Guideline	EPA Number	NTIS Number	Date
Group I:				
Surface coating of automobiles and light-duty trucks	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks	EPA-450/2-77-008	PB 272445	May 1977
Surface coating of cans	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks	EPA-450/2-77-008	PB 272445	May 1977
Surface coating of metal coils	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks	EPA-450/2-77-008	PB 272445	May 1977
Surface coating of paper products	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks	EPA-450/2-77-008	PB 272445	May 1977
Surface coating of fabrics	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks	EPA-450/2-77-008	PB 272445	May 1977

(continued)

TABLE 1. (continued)

Source Category	Control Techniques Guideline	EPA Number	NTIS Number	Date
Petroleum liquid storage in external floating roof tanks	Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks	EPA-450/2-78-047	PB 290579	December 1978
Perchloroethylene dry cleaning systems	Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems	EPA-450/2-78-050	PB 290613	December 1978
Leaks from gasoline tanks trucks and vapor collection systems	Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems	EPA-450/2-78-051	PB 290568	December 1978
Group III:				
Large petroleum dry cleaners	Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners	EPA-450/3-82-009	PB 83-124875	September 1982
Manufacture of high density polyethylene, polypropylene, and polystyrene resins	Control of Volatile Organic Compound Emissions from Manufacture of High Density Polyethylene, Polypropylene, and Polystyrene Resins	EPA-450/83-008	PB 84-134600	November 1983
Natural gas/gas processing plants	Control Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants	EPA-450/2-83-007	PB 84-161520	December 1983
SOCMI fugitive emissions	Control of VOC Fugitive Emissions from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment	EPA-450/3-83-006	PB 84-189372	March 1984
	Fugitive Emission Sources of Organic Compounds, Additonal Information on Emissions, Emission Reductions, and Costs	EPA-450/3-82-010	PB 82-217126	April 1982

(continued)

Table 1. (Continued)

Source Category	Control Techniques Guideline	EPA Number	NTIS Number	Date
SOCMI - Air Oxidation	Control Technique Guideline Document- VOC Emissions from Air Oxidation Process in the Synthetic Organic Chemical Manufacturing Industry.	EPA-450/3-84-015	Not available	December 1984

[1]These documents can be obtained through the:
Natinal Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
Telephone No. to order documents through NTIS: (703) 487-4600

[2]A copy of this document can be obtained through:
Chemical and Petroleum Branch
Emissions Standards and Engineering Division
U.S. Environmental Protection Agency
MD-13
Research Triangle Park, N.C. 27711
Telephone No. (919) 541-5571

TABLE 2.

STATE SUMMARY OF VOC REGULATIONS
CTG GROUPS I, II
REGIONS I-V

KEY

- ○ NO REGULATIONS
- ◒ NO REGULATIONS: NO SOURCES IN NONATTAINMENT AREA
- ■ NO REGULATIONS: SOURCES ARE <100 TPY
- ● EPA APPROVED REGULATION
- ★ REGULATION NOT CONSISTENT WITH CTG
- ☆ APPROVAL PENDING
- □ UNDER DEVELOPMENT

VOC REGULATIONS	I									II		III				IV									V				
	CONNECTICUT	MAINE	MASSACHUSETTS	NEW HAMPSHIRE	RHODE ISLAND	VERMONT	NEW JERSEY	NEW YORK	NEW YORK METRO	DELAWARE	DISTRICT OF COLUMBIA	MARYLAND	PENNSYLVANIA	VIRGINIA	WEST VIRGINIA	ALABAMA	FLORIDA	GEORGIA	KENTUCKY	MISSISSIPPI	NORTH CAROLINA	SOUTH CAROLINA	TENNESSEE	ILLINOIS	INDIANA	MICHIGAN	MINNESOTA	OHIO	WISCONSIN
GROUP I																													
• SURFACE COATING																													
—CANS	●	◒	●	●	◒	○	●	●	●	◒	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
—COILS	●	◒	●	◒	◒	○	●	●	◒	◒	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
—PAPER	●	●	●	●	●	○	●	●	●	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
—FABRICS	●	◒	●	●	●	○	●	●	●	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	□	●	●	○	●	●
—AUTOS/LIGHT-DUTY TRUCKS	◒	◒	●	◒	◒	○	●	●	●	●	◒	●	●	●	○	●	◒	●	●	○	●	◒	●	●	●	●	○	●	●
—METAL FURNITURE	●	◒	●	●	◒	○	●	●	●	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
—MAGNET WIRE	●	◒	●	●	◒	○	●	●	●	◒	◒	◒	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
—LARGE APPLIANCES	◒	◒	●	◒	◒	○	●	●	●	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• PETROLEUM LIQUIDS IN FIXED-ROOF TANKS	●	●	●	●	●	○	●	●	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• BULK TERMINALS	●	●	●	●	●	○	●	●	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• BULK PLANTS	●	■	●	■	●	○	●	●	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• SERVICE STATIONS—STAGE 1	●	■	●	■	●	○	●	■	●	●	●	●	●	●	○	●	●	■	●	○	●	●	●	●	●	●	○	●	●
• PETROLEUM REFINERIES (MISCELLANEOUS SOURCES)	◒	◒	◒	●	◒	○	●	●	●	●	◒	◒	●	●	○	●	●	●	●	○	●	■	●	●	●	●	○	●	●
• CUTBACK ASPHALT	●	■	●	●	■	○	●	●	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• SOLVENT METAL CLEANING (DEGREASERS)	●	■	●	●	●	○	●	●	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
GROUP II																													
• PETROLEUM REFINERY—LEAKS	◒	◒	◒	○	◒	○	●	●	●	●	◒	●	●	●	○	●	◒	●	●	○	◒	■	●	●	●	●	○	●	●
• SURFACE COATING—MISCELLANEOUS METAL PARTS	●	■	●	●	○	○	●	●	●	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	●	●	●	○	●	●
• SURFACE COATING—FLATWOOD PANELING	◒	■	◒	■	◒	○	●	●	●	◒	◒	◒	◒	●	○	●	●	●	●	○	●	●	●	◒	●	●	○	◒	●
• PHARMACEUTICAL MANUFACTURE	●	■	◒	■	○	○	●	●	●	●	◒	●	●	●	○	●	◒	●	●	○	◒	●	●	○	●	●	○	●	●
• RUBBER TIRE MANUFACTURE	★	■	◒	■	◒	○	◒	★	◒	◒	◒	◒	●	●	○	●	◒	●	●	○	●	●	●	☆	●	●	○	●	●
• GRAPHIC ARTS	●	■	●	●	●	○	●	●	●	●	◒	●	●	●	○	●	◒	●	●	○	●	●	●	☆	●	●	○	●	●
• PETROLEUM LIQUIDS IN FLOATING ROOF TANKS	☆	■	●	■	●	○	●	□	□	●	◒	●	●	●	○	●	●	●	●	○	●	●	●	☆	●	●	○	●	●
• DRYCLEANING—PERCHLOROETHYLENE	●	■	●	■	○	○	●	☆	☆	●	◒	●	●	●	○	●	●	■	●	○	●	■	●	☆	★	●	○	●	◒
• GASOLINE TANK TRUCKS	☆	■	☆	■	○	○	●	□	□	●	●	●	●	●	○	●	●	■	●	○	●	■	●	○	●	●	○	●	●

TABLE 2.
STATE SUMMARY OF VOC REGULATIONS
CTG GROUPS I, II
REGIONS VI-X

KEY

- ○ NO REGULATIONS
- ◉ NO REGULATIONS: NO SOURCES IN NONATTAINMENT AREA
- ■ NO REGULATIONS: SOURCES ARE <100 TPY
- ● EPA APPROVED REGULATION
- ★ REGULATION NOT CONSISTENT WITH CTG
- ☆ APPROVAL PENDING
- □ UNDER DEVELOPMENT

VOC REGULATIONS	VI							VII						VIII							IX					X	
	ARKANSAS	LOUISIANA	NEW MEXICO	OKLAHOMA	TEXAS	IOWA	KANSAS	MISSOURI (KC)	MISSOURI (St. L)	NEBRASKA	COLORADO	MONTANA	NORTH DAKOTA	SOUTH DAKOTA	UTAH	WYOMING	ARIZONA	CALIFORNIA—BAY AREA	CALIFORNIA—SAN DIEGO	CALIFORNIA—SOUTH COAST	HAWAII	NEVADA	ALASKA	IDAHO	OREGON	WASHINGTON
GROUP I																											
• SURFACE COATING																											
—CANS	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	◒	○	●	●	●	●	○	◒	○	○	●	●
—COILS	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	◒	○	●	●	●	●	○	◒	○	○	◒	●
—PAPER	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	●	○	■	●	●	●	○	◒	○	○	●	●
—FABRICS	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	●	○	■	●	●	●	○	◒	○	○	●	●
—AUTOS/LIGHT-DUTY TRUCKS	■	●	■	◒	●	○	●	●	●	○	●	○	○	○	◒	○	■	●	○	●	○	◒	○	○	●	●
—METAL FURNITURE	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	●	○	●	●	●	●	○	◒	○	○	●	●
—MAGNET WIRE	■	●	■	◒	◒	○	■	●	●	○	●	○	○	○	●	○	■	●	◒	●	○	◒	○	○	●	●
—LARGE APPLIANCES	■	●	■	◒	●	○	■	●	●	○	●	○	○	○	●	○	●	○	●	●	○	●	○	○	●	●
• PETROLEUM LIQUIDS IN FIXED-ROOF TANKS	●	●	●	●	●	○	●	●	●	○	●	○	○	○	●	○	●	●	●	●	○	●	○	○	●	●
• BULK TERMINALS	●	●	●	●	●	○	●	●	●	○	●	○	○	○	●	○	■	●	●	●	○	●	○	○	●	●
• BULK PLANTS	●	●	◒	●	●	○	■	●	●	○	●	○	○	○	●	○	■	●	●	●	○	●	○	○	●	●
• SERVICE STATIONS—STAGE 1	●	●	●	●	●	○	■	●	●	○	●	○	○	○	●	○	■	●	●	●	○	●	○	○	●	●
• PETROLEUM REFINERIES (MISCELLANEOUS SOURCES)	■	●	●	●	●	○	●	●	◒	○	●	○	○	○	●	○	■	●	●	●	○	◒	○	○	●	●
• CUTBACK ASPHALT	●	●	●	●	●	○	●	●	●	○	●	○	○	○	●	○	●	●	●	●	○	●	○	○	●	●
• SOLVENT METAL CLEANING (DEGREASERS)	■	●	■	●	●	○	■	●	●	○	●	○	○	○	●	○	●	●	●	●	○	●	○	○	●	●
GROUP II																											
• PETROLEUM REFINERY—LEAKS	◒	●	◒	●	●	○	●	●	○	○	●	○	○	○	●	○	◒	●	◒	●	○	●	○	○	●	●
• SURFACE COATING—MISCELLANEOUS METAL PARTS	●	●	◒	●	●	○	○	●	●	○	●	○	○	○	●	○	●	●	●	●	○	○	○	○	●	●
• SURFACE COATING—FLATWOOD PANELING	◒	●	◒	■	●	○	○	○	○	○	◒	○	○	○	●	○	○	●	○	●	○	○	○	○	●	●
• PHARMACEUTICAL MANUFACTURE	◒	●	◒	◒	●	○	○	○	●	○	●	○	○	○	●	○	○	●	○	●	○	○	○	○	◒	■
• RUBBER TIRE MANUFACTURE	◒	◒	◒	●	◒	○	○	○	○	○	◒	○	○	○	◒	○	○	●	○	○	○	○	○	○	◒	■
• GRAPHIC ARTS	◒	●	◒	●	●	○	○	●	●	○	●	○	○	○	●	○	○	●	○	●	○	○	○	○	●	●
• PETROLEUM LIQUIDS IN FLOATING ROOF TANKS	●	●	◒	●	●	○	●	●	●	○	●	○	○	○	●	○	○	●	●	●	○	○	○	○	●	●
• DRYCLEANING—PERCHLOROETHYLENE	◒	●	◒	■	■	○	○	●	●	○	●	○	○	○	●	○	●	●	●	●	○	○	○	○	●	●
• GASOLINE TANK TRUCKS	●	●	◒	●	●	○	●	●	●	○	●	○	○	○	●	○	○	●	●	●	○	●	○	○	●	●

TABLE 2.
STATE SUMMARY OF VOC REGULATIONS
CTG GROUPS III AND OTHER RELATED REGULATIONS
REGIONS I-V

KEY

- ○ NO REGULATIONS
- ◒ NO REGULATIONS: NO SOURCES IN NONATTAINMENT AREA
- ■ NO REGULATIONS: SOURCES ARE ≤100 TPY
- ● EPA APPROVED REGULATION
- ★ REGULATION NOT CONSISTENT WITH CTG
- ☆ APPROVAL PENDING
- □ UNDER DEVELOPMENT

VOC REGULATIONS	I									II		III					IV								V				
	CONNECTICUT	MAINE	MASSACHUSETTS	NEW HAMPSHIRE	RHODE ISLAND	VERMONT	NEW JERSEY	NEW YORK	NEW YORK METRO.	DELAWARE	DISTRICT OF COLUMBIA	MARYLAND	PENNSYLVANIA	VIRGINIA	WEST VIRGINIA	ALABAMA	FLORIDA	GEORGIA	KENTUCKY	MISSISSIPPI	NORTH CAROLINA	SOUTH CAROLINA	TENNESSEE	ILLINOIS	INDIANA	MICHIGAN	MINNESOTA	OHIO	WISCONSIN
GROUP III																													
• LARGE PETROLEUM DRYCLEANERS	◒	◒	◒	◒	◒	○	□	◒	◒	◒	●	◒	○	◒	○	○	○	○	○	○	○	○	○	○	○	◒	○	◒	●
• MANUFACTURE OF HIGH DENSITY POLYETHYLENE, POLYPROPYLENE, POLYSTYRENE RESINS	◒	◒	◒	◒	◒	○	□	◒	◒	◒	◒	◒	■	◒	○	○	○	○	○	○	○	○	○	○	○	○	○	◒	○
• NATURAL GAS/GAS PROCESSING PLANTS	◒	◒	◒	◒	◒	○	□	○	○	◒	◒	◒	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	◒	○
• SOCMI FUGUTIVE EMISSIONS	◒	◒	◒	◒	◒	○	□	○	○	◒	◒	◒	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	◒	○
• VOLATIVE STORAGE VESSELS	◒	◒	◒	◒	◒	○	□	○	○	◒	◒	◒	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	◒	○
• SOCMI—AIR OXIDATION	◒	◒	◒	◒	◒	○	□	○	○	◒	◒	◒	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	◒	○
OTHER																													
• RACT (CASE BY CASE)	○	○	●	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	●	●	○	○	○	○
• ARCHITECTURAL COATINGS	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○
• ETHYLENE PRODUCTION PLANT	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○
• SMALL FIXED-ROOF TANK	○	○	○	○	○	○	○	○	○	●	○	●	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○
• WASTE GAS DISPOSAL	●	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• SURFACE COATING HEAVY OFF-HIGHWAY VEHICLE PRODUCTION	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○
• SURFACE COATING PLASTIC FILM	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	☆	○	○	○	○	○	○
• GENERAL REQ. FOR STORAGE, TRANSFER, DISPOSAL OF VOCs	●	○	○	○	○	○	●	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• STORAGE OF HIGHLY VOLATILE ORGANIC COMPOUNDS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• BUBBLES	●	○	☆	○	●	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• STAGE II CONTROLS	○	○	○	○	○	○	□	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• POLYETHYLENE BAG SEALING OPERATIONS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• DOCK LOADING FACILITIES	○	○	○	○	○	○	□	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• AIRPLANE REFUELING	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• SURFACE COATING—AEROSPACE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• ASPHALTIC PITCH—ROOF COATING	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○
• PUMPS AND COMPRESSORS	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• WATER SEPARATION	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○
• ORGANIC SOLVENTS	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• SOLVENTS DISPOSAL	●	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○

CTGs NOT ISSUED YET

TABLE 2.
STATE SUMMARY OF VOC REGULATIONS
CTG GROUP III AND OTHER RELATED REGULATIONS
REGIONS VI-X

KEY

- ○ NO REGULATIONS
- ◉ NO REGULATIONS: NO SOURCES IN NONATTAINMENT AREA
- ■ NO REGULATIONS: SOURCES ARE <100 TPY
- ● EPA APPROVED REGULATION
- ★ REGULATION NOT CONSISTENT WITH CTG
- ☆ APPROVAL PENDING
- □ UNDER DEVELOPMENT

	VI							VII						VIII						IX							X	
VOC REGULATIONS	ARKANSAS	LOUISIANA	NEW MEXICO	OKLAHOMA	TEXAS	IOWA	KANSAS	MISSOURI (KC)	MISSOURI (ST. L)	NEBRASKA	COLORADO	MONTANA	NORTH DAKOTA	SOUTH DAKOTA	UTAH	WYOMING	ARIZONA	CALIFORNIA—BAY AREA	CALIFORNIA—SAN DIEGO	CALIFORNIA—SOUTH COAST	HAWAII	NEVADA	ALASKA	IDAHO	OREGON	WASHINGTON
GROUP III																												
• LARGE PETROLEUM DRYCLEANERS	■	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	○	○	○	○	■	■
• MANUFACTURE OF HIGH DENSITY POLYETHYLENE, POLYPROPYLENE, POLYSTYRENE RESINS	■	○	○	○	○	○	○	◒	◒	○	○	○	○	○	○	○	○	●	○	●	○	○	○	○	◒	◒
• NATURAL GAS/GAS PROCESSING PLANTS	○	○	○	○	○	○	○	◒	◒	○	○	○	○	○	○	○	○	□	□	□	○	○	○	○	◒	◒
• SOCMI FUGUTIVE EMISSIONS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• VOLATIVE STORAGE VESSELS	CTGs NOT ISSUED YET																									
• SOCMI—AIR OXIDATION	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
OTHER																										
• RACT (CASE BY CASE)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• ARCHITECTURAL COATINGS	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	●	●	●	●	○	○	○	○	○	○
• ETHYLENE PRODUCTION PLANT	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• SMALL FIXED-ROOF TANK	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○	○	○	○
• WASTE GAS DISPOSAL	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○
• SURFACE COATING HEAVY OFF-HIGHWAY VEHICLE PRODUCTION	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	●	○	○	○	○	○	○	○
• SURFACE COATING PLASTIC FILM	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	●	○	●	○	○	○	○	○	○
• GENERAL REQ. FOR STORAGE, TRANSFER, DISPOSAL OF VOCs	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○
• STORAGE OF HIGHLY VOLATILE ORGANIC COMPOUNDS	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	●	●	●	○	○	○	○	○	○
• BUBBLES	○	○	○	○	○	○	○	☆	☆	○	●	○	○	○	○	○	○	◒	●	●	○	○	○	○	○	○
• STAGE II CONTROLS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	●	○	○	○	○
• POLYETHYLENE BAG SEALING OPERATIONS	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• DOCK LOADING FACILITIES	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
• AIRPLANE REFUELING	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○
• SURFACE COATING—AEROSPACE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○
• ASPHALTIC PITCH—ROOF COATING	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	○	○	○	○	○	○	○
• PUMPS AND COMPRESSORS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○
• SEMICONDUCTOR MANUFACTURE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○
• SURFACE COATING—PLASTIC PARTS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	●	○	○	○	○	○	○
• SURFACE COATING—WOOD FURNITURE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	●	○	○	○	○	○	○
• VALVES/FLANGES AT CHEMICAL PLANTS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○
• COATINGS AND INK MANUFACTURE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	●	○	○	○	○	○	○	○

TABLE 3. VOC REGULATIONS REQUIRED BY VARIOUS STATES

Areas	Group I	Group II	Group III	Other Sources >100 TPY	Additional Measures
Urbanized ozone Nonattainment Non-extension areas not presently subject to a SIP Call (Table 4)	X (>100 TPY)	X (>100 TPY)	-	-	-
Rural nonattainment (Table 5)	X (>100 TPY)	X (>100 TPY)	-	-	-
Urbanized areas requesting extensions beyond 1982 (Table 6)	X	X	X	X	X[1]
1984 & 1985 SIP Call Areas (Tables 7 & 8)	X	X	X	X	X[1]
Urbanized ozone extension areas not likely to attain by 1987[2]	X	X	X	X	X
States classified as attainment areas for ozone (Table 9)					
VOC compounds exempted from regulation by States (Rule 66 Status) (Table 10)					

[1] If necessary to attain by 1987.

[2] EPA is in the process of determining those additional measures that may be required of such areas.

TABLE 4. URBANIZED OZONE NONATTAINMENT NON-EXTENSION AREAS NOT PRESENTLY SUBJECT TO A SIP CALL

EPA Region	State[a]	Non-extension Area
II	NY	Albany Co., Schenectady Co.
III	PA	Cumberland Co., Dauphin and Perry Counties
IV	FL	Duval Co, Hillsborough, Orange, and Pinellas Counties
	GA	Muscogee County
	NC	Mecklenburg County
	TN	Hamilton and Knox Counties
V	IN	Marion County
	MI	Clinton, Eaton, Genesee, Ingham, Kent, and Ottawa Counties
	OH	Delaware, Franklin, Greene, Lucas, Mahoning, Miami, Montgomery, Preble, Stark, and Trumbell Counties
VI	AR	Pulaski County
	LA	Jefferson Parish, Orleans and St. Bernard Parishes
	TX	Nueces County
X	WA	Tacoma County

[a] All areas are counties, except Louisiana (parishes).

TABLE 5. RURAL NONATTAINMENT AREAS

EPA Region	State	Nonattainment Area[a]
I	ME	Androscoggin, Cumberland, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, Waldo, York
	NH	Belknap, Chesire, Hillsborough, Merrimack, Rockingham, Strafford, Sullivan
II	NY	Cloumbia, Dutchess, Greene, Orange, Putnam, Rensselaer, Saratoga, Ulster
III	PA	Adams, Bedford, Berks, Blair, Bradford, Cambria, Cameron, Carbon, Centre, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntington, Indiana, Jefferson, Juniata, Lancaster, Lawrence, Lebanon, Lycoming, McKean, Mercer, Mifflin, Monroe, Montour, Northumberland, Pike, Schuylkill, Snyder, Somerset, Sullivan, Susquehana, Tioga, Union, Venango, Warren, Wayne, Wyoming, York
IV	AL	Etowah, Russell
	GA	Coweta, Douglas, Fayette, Henry, Paulding, Rockdale
	KY	Boyd
	SC	York
	TN	Bradley, Maury, Roane, Rutherford, Sullivan, Sumner, Williamson, Wilson
V	IL	Macoupin, Williamson

[a] All areas are counties, except Louisiana (parishes).

TABLE 5. (Continued)

EPA Region	State	Nonattainment Area[a]
V	MI	Allegan, Barry, Bay, Berrien, Branch, Calhoun, Cass, Gratiot, Hillsdale, Huron, Ionia, Jackson, Kalamazoo, Lapeer, Lenawee, Livingston, Marquette, Midland, Monroe, Montcalm, Muskegon, Saginaw, St. Clair, St. Joseph, Sanilac, Shiawassee, Tuscola, Van Buren, Washtenaw
	OH	Ashtabula, Clark, Clinton, Columbia, Geauga, Jefferson, Licking
	WI	Sheboygan
VI	LA	Ascension, Beauregard, Bossier, Caddo, Calcasieu, Grant, Iberville, Lafayette, Pointe Coupee, St. Charles, St. James, St. John the Baptist, St. Mary, West Baton Rouge
	TX	Brazoria, Galveston, Gregg, Jefferson, Orange, Victoria
VII	KS	Douglas
IX	CA	Butte, Imperial, Kings, Madera, Merced, Sutter, Tulare, Yuba
X	OR	Jackson, Marion, Polk

[a] All areas are counties, except Louisiana (parishes).

TABLE 6. URBANIZED AREAS REQUESTING EXTENSIONS BEYOND 1982

EPA Region	State	Metropolitan Area	County
I	CT	Statewide	Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham
	MA	Statewide	Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, Worcester
II	NJ	Statewide	Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Sussex, Union, Warren
	NY	New York City	Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester
III	DE	Wilmington	New Castle
	DC	Washington	District of Columbia
	MD	Baltimore	Anne Arundel, Baltimore, Carrol, Harford, Howard, Baltimore City
		Washington	Montgomery, Prince George's
	PA	Pittsburgh	Allegheny, Armstrong, Beave Butler, Washington, Westmoreland
		Philadelphia	Bucks, Chester, Delaware, Montgomery, Philadelphia
		Allentown	Lehigh, Northampton
	VA	Washington	Arlington, Fairfax, Loudon Prince William
IV	KY	Cincinnati Louisville	Boone, Campbell, Kenton Jefferson
V	IL	Chicago	Cook, DuPage, Kane, Lake, McHenry, Will
		St. Louis	Madison, Monroe, St.Clair
	IN	Louisville Chicago	Clark, Floyd Lake, Porter
	MI	Detroit	Macomb, Oakland, Wayne
	OH	Cincinnati	Butler, Clermont, Hamilton, Warren
		Cleveland	Cuyahoga, Lake, Lorain, Medina
	WI	Milwaukee	Kenosha, Milwaukee, Ozaukee, Racine, Waukesha

(Continued)

TABLE 6. (Continued)

EPA Region	State	Metropolitan Area	County
VI	TX	Houston	Harris
VII	MO	St. Louis	Franklin, Jefferson, St. Charles, St. Louis County and City
VIII	CO	Denver	Adams, Arapahoe, Boulder, Denver, Douglas, Jefferson
	UT	Salt Lake City	Davis, Salt Lake
IX	CA	San Francisco Bay Area	San Mateo, Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, Yol Solano, Sonoma, Stanislaus
		North Central Coast	Monterey, San Benito, Santa Cruz, San Joaquin
		Stockton	San Joaquin
		South Coast	Orange, San Bernadino, Los Angeles, Riverside
		Santa Barbara	Santa Barbara
		Fresno	Fresno
		Ventura-Oxnard	Ventura
		Sacramento	Sacramento, El Dorado, Solano, Placer
		San Diego	San Diego
X	OR	Portland	Clackamas, Multnomah, Washington
	WA	Seattle	King, Pierce, Snohomish
		Vancouver	Clark

TABLE 7. 1984 SIP CALL AREAS

EPA Region	State	Area	Reason
III	PA	Scranton (Lackawanna Co.)	Violation
		Wilkes Barre (Luzerne Co.)	Std. in Scranton 81-82
	VA	Richmond City-Henrico Co. Chesterfield Co.	Violation 83
IV	AL	Jefferson Co.	Violation 81-83
	FL	Dade Co.	Violation 81-82
		Broward Co.	Violation 81-82
		Palm Beach Co.	Violation 81-82
	GA	Atlanta Metropolitan Area	Violation 81-83
		Clayton Co.	Violation 81-83
		Cobb Co.	Violation 81-83
		Coweta Co.	Violation 81-83
		Dekalb Co.	Violation 81-83
		Douglas Co.	Violation 81-83
		Fayette Co.	Violation 81-83
		Fulton Co.	Violation 81-83
		Gwinnett Co.	Violation 81-83
		Henry Co.	Violation 81-83
		Paulding Co.	Violation 81-83
		Rockdale Co.	Violation 81-83
	TN	Memphis - Shelby Co.	Violation 83
V	IN	St. Joseph Co.	Failure to submit RACT
		Elkhart Co.	Failure to submit RACT
	OH	Portage Co.	Violation 81-83
		Summit Co.	Violation 81-83
VI	LA	Baton Rouge	Violation 83
	OK	Tulsa Co.	Violation 83
	TX	Dallas Co.	Violation 83
		Denton Co.	Violation 83
		Tarrant Co.	Violation 83
		El Paso Co.	Violation 83
IX	AZ	Maricopa Co.	Violation 82
	CA	Kern Co.	Violation 82
	NV	Clark Co.	Violation 82-83

TABLE 8. 1985 SIP CALL AREAS

EPA Region	State	Area	Reason
VII	MO	Kansas City Metro. area	Violation 83-84
		Clay Co.	Violation 83-84
		Jackson Co.	Violation 83-84
		Platte Co.	Violation 83-84
	KS	Johnson Co.	Violation 83-84
		Wyandotte Co.	Violation 83-84

TABLE 9. STATES CLASSIFIED AS ATTAINMENT FOR OZONE - VOC REGULATIONS ARE NOT REQUIRED

EPA Region	State
I	Vermont
III	West Virginia
IV	Mississippi
V	Minnesota
VII	Iowa Nebraska
VIII	Montana North Dakota South Dakota Wyoming
IX	Hawaii
X	Alaska Idaho

TABLE 10. EXEMPTIONS OF COMPOUNDS BY STATE

EPA Region	State	Chemical a 1,1,1	b CH_2Cl_2	c CFC-113	d CFC-11	e CFC-12	f CFC-22	g FC-23	h CFC-114	i CFC-115	Comments
I	CT	X	X	X							
	ME	X	X	X							CC & OTVD only
	MA	X		X							
	NH	X	X	X	X	X	X	X	X	X	
	RI										No exemptions
	VT	o	o	o	o	o	o	o	o	o	Attainment
II	NJ			X	X	X	X	X	X	X	
	NY (City & Upstate)	X	X	X	X	X	X	X	X	X	Octamethycyclotetrasiloxane also exempt
III	DE	X	X	X							
	DC	X	X	X							
	MD	X		X							
	PA										No exemptions
	VA	X	X								
	WV	o	o	o	o	o	o	o	o	o	Attainment
IV	AL	X		X							
	FL	X	X	X	X	X	X	X	X	X	
	GA	X	X	X	X	X	X	X	X	X	
	KY										Only exemptions are for methane and ethane
	MS	o	o	o	o	o	o	o	o	o	Attainment
	NC	X	X	X	X	X	X	X	X	X	
	SC	X		X							Acetonitrile also exempt
	TN	X		X	X	X	X	X	X	X	
V	IL	X	X								
	IN	X	X	X							
	MI										Only exemptions are for methane and ethane
	OH	X	X								
	MN	o	o	o	o	o	o	o	o	o	Attainment
	WI			X							

(Continued)

TABLE 10. Continued

EPA Region	State	Chemical: 1,1,1[a]	CH_2Cl_2[b]	CFC-113[c]	CFC-11[d]	CFC-12[e]	CFC-22[f]	FC-23[g]	CFC-114[h]	CFC-115[i]	Comments
VI	AR	X	X	X							
	LA	X	X	X		X	X	X	X	X	
	NM	+	+	+							Solvent metal cleaning operations not regulated
	OK	X	X	X							
	TX	X		X	X	X	X	X	X	X	
VII	KS	X	X	X							
	MO	X	X	X	X	X	X	X	X	X	
	IA	o	o	o	o	o	o	o	o	o	Attainment
	NB	o	o	o	o	o	o	o	o	o	Attainment
VIII	CO	X	X	X	X	X	X	X	X	X	
	MT	o	o	o	o	o	o	o	o	o	Attainment
	ND	o	o	o	o	o	o	o	o	o	Attainment
	SD	o	o	o	o	o	o	o	o	o	Attainment
	UT	X	X	X	X	X	X	X	X	X	
	WY	o	o	o	o	o	o	o	o	o	Attainment
IX	AZ	X	X	X							
	CA	X	X	X							
	HA	o	o	o	o	o	o	o	o	o	Attainment
	NV										No exemptions
X	AK	o	o	o	o	o	o	o	o	o	Attainment
	ID	o	o	o	o	o	o	o	o	o	Attainment
	OR	X	X	X							
	WA	X	X	X							

[a] 1,1,1-Trichloroethane (methyl chloroform)
[b] Methylene chloride
[c] Trichlorotrifluoroethane (CFC-113)
[d] Trichlorofluoromethane
[e] Dichlorodifluoromethane
[f] Chlorodifluoromethane
[g] Trifluoromethane
[h] Dichlorotetrafluoroethane
[i] Chloropentafluoroethane

X Exempt
o Attainment; no VOC regs.
+ No solvent cleaning regs.

REGION I

Connecticut

Maine

Massachusetts

New Hampshire

Rhode Island

NOTE: The entire State of Vermont has been classified as an attainment area for ozone.

CONNECTICUT

Sec. 22a-174-20. Control of Organic Compound Emissions

(a) Storage of volatile organic compounds
(b) Loading of gasoline and other volatile organic compounds
(c) Volatile organic compound water separation
(d) Pumps and compressors
(e) Waste gas disposal
(f) Organic solvents
(g) Architectural coatings
(h) Exemptions
(i) Classification of solvents
(j) Disposal and evaporation of solvents
(k) Restrictions on cutback asphalt
(l) Metal cleaning
(m) Can coating
(n) Coil coating
(o) Fabric and vinyl coating
(p) Metal furniture coating
(q) Paper coating
(r) Wire coating
(s) Miscellaneous metal parts and products
(t) Manufacture of synthesized pharmaceutical products
(u) Manufacture of pneumatic rubber tires
(v) Graphic arts rotogravure and flexography
(w) Dry cleaning facilities
(aa) Applicability - emissions of VOCs in excess of 8 lb/hr or 40 lbs/day
(bb) Compliance methods
(cc) Alternative emission reductions
(dd) Seasonal operation of afterburners
(ee) RACT

STATE: Connecticut
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane (methyl chloroform), methylene chloride, trichlorotrifluoroethane (Freon 113).

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating		No regulation		Approval	State has certified that no facilities are known to exist in the non-attainment areas.
Surface Coating Cans	22-174-20 (m) (2)	Sheet basecoat and over varnish and two piece can exterior operations - 2.8 lb/gal (minus water) Two and three piece can interior body spray, and two piece can exterior end operations - 4.2 lb/gal (minue water) Three piece can side seam spray operations - 5.5 lb/gal (minus water) End sealing compound operations - 3.7 lb/gal (minus water)		Approval	
Surface Coating Metal Coils	22-174-20 (n) (2)	Prime and topcoat, or single coat operations - 2.6 lb/gal (minus water)		Approval	
Surface Coating Paper	22-174-20 (q) (2)	Paper coating line - 2.9 lb/gal (minus water)		Approval	

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	22-174-20 (o) (2)	Fabric coating line - 2.9 lb/gal (minus water) Vinyl coating line - 3.8 lb/gal (minus water)		Approval	
Surface Coating Metal Furniture	22-174-20 (p) (2)	Prime and topcoating, or single coat operations - 3.0 lb/gal (minus water)		Approval	
Surface Coating Large Appliances		No regulation		Approval	State has certified that no facilities are known to exist in the non-attainment areas.
Surface Coating of Insulation of Magnet Wire	22-174-20 (r) (2)	1.7 lb/gal (minus water)		Approval	
Petroleum Liquids in Fixed Roof Tanks	22-174-20 (a) (2)	A floating roof, ...equipped with a closure seal or seals ... OR a vapor recovery system OR equivalent means of emission reduction.	Tanks with $\leq$40,000 gal capacity and <1.5 psia vapor pressure	Approval	
	22-174-20	Submerged fill pipe or pressure (a) (3)	Stationary storage vessel of <250 gal capacity and <1.5 psia vapor pressure Storage vessel <1000 gal, installed prior to 6/1/72		Applied to stationary storage vessels $\geq$ 250 gal capacity

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks (Cont'd)			Underground storage vessel, installed prior to 6/1/72, which uses offset fill pipe		
Bulk Gasoline Plants	22-174-20 (b) (4)	Submerged fill pipe and a vapor balance system	Gasoline loading throughput of <4000 gal/day	Approval	Applies to gasoline loading facilities with a throughput between 4000 and 10,000 gal/day.
Gasoline Loading Terminals	22-174-20 (b) (1) (b) (2)	Vapors processed through vapor recovery system Vapor collection and disposal system or equivalent and VOC emissions are reduced to <80 mg/l. Also a loading arm with a vapor collection adaptor.	Gasoline loading throughput of <10,000 gal/day Delivery vehicles with a capacity of ≤200 gallons	Approval	Applies to gasoline loading facilities with a throughput of ≥10,000 gal/day
Service Stations Stage I	22-174-20			Approval	
	(b) (5)	By 12/31/82, approved control system for tanks with >2000 gal capacity and annual throughput of ≥120,000 gals.			
	(b) (6)	After 12/31/82, approved control system for tanks with >250 gal capacity and annual throughput of ≥120,000 gal.			
	(b) (7)	Transfer procedures Properly maintained and operated approved control system AND Piping, valves, fittings, connections on delivery vehicle to attain rated collection efficiency			

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I (Cont'd)	22-174-20 (b) (9)	Operation of delivery vehicle Vapor-tight Hatches closed during loading Pressure relief valves set >0.7 lb psi Refilled only at facilities complying with (b) (1) and (b) (4)			
	22-174-20 (b) (10)		State may provide exemptions to (b) (4) and (b) (5) due to economic or technological infeasibility		
Miscellaneous Refinery Sources		No regulations.		Approval	State has certified that no facilities are known to exist in the nonattainment areas.
Solvent Metal Cleaning	22-174-20 (1) (3)	After 7/1/80: COLD CLEANERS - similar to CTG, except: No minimum freeboard ratio No requirement for water cover or equivalent system No labeling requirement	Device that emit 40 lb/day, or <8 lb/hr. OVTD with <1 m^2 of open area are exempt from (1)(4)(iii) Conveyorized degreasers with <2 m^2 of air/vapor interface are exempt from (1)(5)(i) Equipment in operation before 7/1/80 which meets requirements of Sec. (F) is exempt from (1)(4) and (5)	Approval	

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (Cont'd)			Equipment using 1,1,1 trichloroethane, methylene-chloride, trichloro-fluoroethane Equipment used in licensed auto repair place exempt from (1) (3)		
	(1) (4)	OVTD - similar to CTG, except: No operating requirements No labeling requirements Preclusion of degreasing porous materials.			
	(1) (5)	CONVEYORIZED DEGREASERS - similar CTG, except: No restrictions for workplace fans No requirement to minimize openings No operating requirements for water separator or for leak repair. No requirement for vapor level thermostat.			
Cutback Asphalt	22-174-20 (k) (2)	After 10/1/85: Storage, use, application prohibited during June-September except as noted	Medium-curing cutback may be used solely as a penetrating prime coat for aggregate bases prior to paving. Medium-curing asphalt may be used for manufacture of	Approval	

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt (Con't)			materials for long-period storage or stock-piling of patching mixes Class 8 Bituminous concrete may be used at any time for surface treatments under one inch, for crack filling, relief joints minor leveling or pothole patching		
Refinery Leaks		No regulations		Approval	State has certified that no sources exist in state
Surface Coating Miscellaneous Metal Parts	22-174-20 (s) (3)	. Clear coatings - 4.3 lb VOC/gal (minus water) . Air dried - 3.5 lb VOC/gal (minus water) . Extreme performance - 3.5 lb VOC/gal (minus water) . Other - 3.0 lb VOC/gal (minus water)		Approval	
Surface Coating Flatwood Panels		No regulations		Approval	State has certified that no sources exists in state

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	22-174-20 (t) (2)	Surface condenser: outlet gas temperature must not exceed . -25°C with VOCs having vapor pressure ≥5.8 psi at 20°C . -15°C with vapor pressure ≥2.9 psi at 20°C . 0°C with vapor pressure of ≥1.5 psi at 20°C . 10°C with vapor pressure of ≥1.0 psi at 20°C . 25°C with vapor pressure of ≥0.5 psi at 20°C Equivalent controls: emissions reductions must equal those using surface condenser		Approval	
	22-174-20 (t) (3)	Air dryer and process equipment exhaust system reductions: . At least 90% if VOCs 330 lb/day . ≤40 lb/day if VOCs 330 lb/day			
	22-174-20 (t) (4)	Vapor balance system or equivalent and emissions <80 mg/l	<2000 gal		Applies to loading from truck or rail-car to storage tanks with capacities >2000 gal, with vapor pressure ≥4.1 psi at 20°C
	22-174-20 (t) (4)	Pressure/vacuum conservation vents or more effective controls meeting state fire standards			Applies to storage tanks with vapor pressure of ≥1.5 psi at 20°C

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Cont'd)	22-174-20 (t) (5)	Enclose all centrifuges, rotary vacuum filters, other filters exposed liquid surface			Applies to liquids containing VOCs, with vapor pressure with $\geq$ 0.5 psi at 20°C
	22-174-20 (t) (6)	Covers installed and kept closed	Production, sampling or maintenance requires operator access		
	22-174-20 (t) (7)	Repair of all leaks			
Rubber Tire Manufacture	22-174-20 (u) (2) (a) (u) (2) (d)	Undertread cementing, tread cementing, bead dipping . Capture system - up to 70% by weight of VOCs emitted and consistent with manuals/ guidelines from American Federation of Industrial Hygienists and NIOSH . Control device meeting one of following requirements - Carbon adsorption with 90% removal of VOCs by weight from ducted gases	Undertread cementing - total VOC emissions <200 lbs/day Tread end cementing - total VOC emissions <200 lbs/day Bead cementing - total VOC emissions <100 lbs/day	Not approved	Regulation not consistent with CTG
	22-174-20 (u) (2) (a) (u) (2) (d)	- Incineration with 90.0% oxidation of nonmethane VOCs (measured at total combustible carbon) to carbon and water - Alternative VOC reduction system certified by owner to have a least 90.0% reduction efficiency			

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture (Cont'd)	22-174-20 (u) (2) (b)	Green tire spraying . Substitute water-based sprays for solvent-based mold release compound OR . Use capture system to capture/transfer at least 70% VOC emissions to control device meeting one of same requirements in (u) (2) (a)	Green tire spraying total VOC emissions <200 lbs/day		
	22-174-20		Specialty tires produced on irregular basis, short runs, equipment separate from normal production lines for passenger tires		
Graphic Arts	22-174-20 (v) (2)	No emissions unless . Volatile fraction of ink contains <25% by volume of VOC ≥75% water OR . Ink (minus water) contains 60% by volume non-volatile material OR . Owner/operator installs and uses the following controls:		Approval	

24

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (Cont'd)	22-174-20	- Carbon adsorption system which reduces emissions from capture system by >90% OR - Incineration that oxidizes 90% of nonmethane VOCs which enter, OR - Equivalent or greater control efficiency			
	22-174-20 (v) (3)	Capture system must be used with control system in (v) (2) and must provide following VOC emissions reductions . Publication rotogravure - at least 75% . Packaging rotogravure - at least 65% . Flexographic printing - at least 60%			
Petroleum Liquid Storage in Floating	22-174-20 (a) (2) (iv)	Secondary seals		Approval pending	
Drycleaning-Perchloroethylene	22-174-20 (w) (2)	Perchloroethylene drycleaners . Dryer exhaust-vent through carbon adsorption system or equivalent and maintain emissions ≤100 ppmv (measured before dilution) . Prevent leaks, excessive vapor losses from seals, gaskets, ducts, related equipment	Dry cleaning facilities which lack space/steam capacity for adsorber systems or can demonstrate financial hardship	Approval	

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Perchloroethylene (Cont'd)		. Diatomaccous filters - treat so that residue contains ≤25 kg VOC emissions/100 kg wet waste material . Filtration cartridges - drain 24 hours before discarding			
Gasoline Tank Trucks	22-174-20 (b) (11)	Certify leak tightness		Approval pending	
VOC Water Separation	22-174-20 (c)	. Openings sealed, liquid enclosed . Floating roof . Gas-tight sampling/gauging devices . Vapor recovery system	Separators receiving <200 gal/day, with vapor pressure <1.5 psia	Approval	Non-CTG
Pumps, Compressors	22-174-20 (d)	Mechanical seals or equivalent	Vapor pressure <1.5 psia	Approval	Non-CTG
Waste Gas Disposal	22-174-20 (e)	. Ethylene producing plant or emission source-burn waste gas stream at 1300°F for ≥0.3 sec in a direct-flame after burner or equivalent	Emergency relief and vapor blow-down systems	Approval	Non-CTG
		. Vapor blow-down/emergency relief -burning by smokeless flares or equivalent	Considered for low frequency of venting or in case of safety hazard		

STATE: Connecticut

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Organic Solvents	22-174-20(f)			Approval	Non-CTG
	22-174-20 (f) (1)	. 40 lbs/day or 8 lbs/hr from source where VOC is in contact with flame, baked, polymerized unless 85% reduction			Applied to operations for processing a continues web, strip, or wire
	22-174-20 (f) (2)	. 40 lbs/day or 8 lbs/hr from source using/applying photo-chemically reactive solvent unless 85% emission reductions	Source regulated under (f) (1)		Applies to emissions from air or heated drying of certain products
	(f) (4)	. 800 lbs/day or 160 lbs/hr from source using/applying non photochemically reactive solvent unless 85% emission reductions	Sources regulated under (f) (1)		
Architectural Coatings	22-174-20 (g)	. 1-1-74 - Sale of coating or solvent in containers >1 quart prohibited unless solvent is photochemically unreactive . 1-1-75 - Use of architectural coating purchased in container >1 quart prohibited unless solvent is photochemically unreactive	Case-by-case if unreactive solvents are not available	Approval	Non-CTG
Disposal/Evaporation Of Solvents	22-174-20 (j)	. 1.5 gal/day of any organic solvent, or material containing > 1.5 gal of any such organic solvent	Disposal means which prevent evaporation to the environment	Approval	Non-CTG

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Alternative "emission" reductions	22-174-20 (cc)	Net emission reduction from all sources equivalent to the reduction achieved if each source is complying with prescribed emission limit.		Approval	Can be used for sources subject to subsections (l) through (v) inclusive and (ee).
RACT for Large Sources	22-174-20 (ee)	RACT used to limit the discharge discharge of VOC	1. Facilities with actual emissions <100 TPY. 2. Facilities subject to subsections (m) through (V) inclusive	Approval	

MAINE

Ch. 111 Petroleum liquid storage vapor control
Ch. 112 Petroleum liquids transfer vapor recovery

STATE: MAINE
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Metropolitan Portland
Portland Peninsula, and
Central Maine Air Quality
Control Region

GENERAL EXEMPTIONS: Sources with potential emissions <100 TPY. All cold cleaners and any degreaser using Freon 113, methyl chloroform or methylene chloride.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating Surface Coating Cans Surface Coating Metal Coils Surface Coating Fabrics Surface Coating Metal Furniture Surface Coating Large Appliances Surface Coating of Insulation of Magnet Wire Miscellaneous Refinery Sources		No regulations		Approval	State has certified that no facilities are known to exist in the nonattainment areas.
Surface Coating Paper		Requirements are controlled through Maine Air Emission Licensing Mechanism. State requires Best Practical Treatment with at least 85% control.		Approval	

STATE: MAINE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	Ch. 111	1. Internal floating roof with closure seals 2. No visible holes or openings in seals 3. All openings shall be equipped with covers	1. Tank with capacity of <39,000 gal 2. Petroleum liquids with vapor pressure <1.52 psia	Approval	
Bulk Gasoline Plants		No regulation		Approval	State has certified that no sources exist >100 TPY
Gasoline Loading Terminals	Ch. 112	1. Vapor control system 2. All lines are vapor-tight 3. Emission Limit - 80 mg/liter of gasoline transferred	1. Terminals in Searsport 2. Terminals which pump <20,000 gal/day and not in existence before 12-31-78	Approval	
Service Stations-Stage I		No regulation		Approval	State has certified that no sources exist >100 TPY
Solvent Metal Cleaning		No regulation		Approval	State has certified that there are no sources using non-exempt solvents >100 TPY
Cutback Asphalt		No regulation		Approval	State has certified that this category is less than 100 TPY source

MASSACHUSETTS

7.00 Alternative Emission Limitations for VOCs (Bubble)
7.02 Plan Approval and Emission Limitations

(12) Organic material

7.18 Volatile Organic Compounds

(1) Application
(2) Compliance with emission limitations
(3) Metal furniture surface coating
(4) Metal can surface coating
(5) Large appliance surface coating
(6) Magnet wire insulation surface coating
(7) Automobile surface coating
(8) Solvent metal degreasing
(9) Cutback asphalt
(10) Metal coil coating
(11) Surface coating of miscellaneous metal parts and products
(12) Graphic arts - rotogravure and flexography
(13) Dry cleaning systems - perchloroethylene
(14) Paper surface coating
(15) Fabric surface coating
(16) Vinyl surface coating
(17) Reasonably available control technology

STATE: MASSACHUSETTS
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane; ethane; 1,1,1-trichloroethane (methyl chloroform); trichlorotrifluoroethane (Freon 113)

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	7.18(7)		lb VOC/gal (minus water) / Compliance Date		Approval	Compliance with the topcoat and final repair emission limits shall be based on a daily arithmetic avg.
		Primer application	2.1 / 07/01/79			
			1.2 / 12/31/82			
		Primer-surfacer application	3.0 / 12/31/80			
			2.9 / 12/31/85			
		Topcoat application	5.8 / 12/31/79			
			5.0 / 12/31/82			
			2.8 / 12/31/85			
		Final repair application	4.8 / 12/31/85			
Surface Coating Cans	7.18(4)		lb VOC/gal (minus water)		Approval	
		Sheet basecoat (ext. & int.) and ext. over-varnish	2.8			
		Two piece can exterior	2.8			
		Two and three piece can interior body spray	4.2			
		Two piece can exterior end (spray or roll coat)	4.2			
		Three piece can side seam spray	5.5			
		End sealing compound	3.7			

STATE: MASSACHUSETTS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	7.18(10)	2.6 lb VOC/gal (minus water)		Approval	
Surface Coating Paper	7.18(14)	2.9 lb VOC/gal (minus water)		Approval	
Surface Coating Fabrics	7.18(15) 7.18(16)	Fabric- 2.9 lb VOC/gal (minus water) Vinyl- 3.8 lb VOC/gal (minus water)		Approval	
Surface Coating Metal Furniture	7.18(3)	3.0 lb VOC/gal (minus water)	Facilities with potential to emit <100 TPY	Approval	
Surface Coating Large Appliances	7.18(5)	2.8 lb VOC/gal (minus water)	Facilities with potential to emit <100 TPY	Approval	
Surface Coating of Insulation of Magnet Wire	7.18(6)	1.7 lb VOC/gal (minus water	Facilities with potential to emit <100 TPY	Approval	
Petroleum Liquids in Fixed Roof Tanks	7.02 (12)(a)	A floating roof... equipped with closure seal,....or A pressure tank system... or A vapor recovery system... or Equivalent equipment	Tanks with capacities <40,000 gal. containing organic material with vapor pressures <1.5 psi and >11.0 psi	Approval	Reg (12)(a)2 applies to tanks containing liquids with vapor pressure >11 psi. This reg. requires a pressure tank system, a vapor recovery system, or the equivalent.

STATE: MASSACHUSETTS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	7.02 (12)(a)5	Submerged fill pipe and approved system that captures at least 90% of the total emissions	1. Organic materials with a vapor pressure of <1.5 psi 2. The loading of motor vehicle tank trucks 3. Duke and Nantucket counties	Approval	Applies to facilities with daily throughputs less than 20,000 gal.
Gasoline Loading Terminals	7.02 (12)(a)4	Submerged fill pipe and approved vapor recovery system that captures at least 90% of the total emissions	1. Organic materials with a vapor pressure <1.5 psi 2. Avg. daily throughput <20,000 gal.	Approval	
Service Station Stage I	7.02 (12)(b)	Vapor control system which is at least 90% efficient	1. Tanks <2000 gal or with floating roofs 2. Motor vehicle fuel with a true vapor pressure <1.5 psi 3. Berkshire APCD 4. Tanks <550 gal with submerged fill used for implements of husbandry	Approval	
Miscellaneous Refinery Sources		No regulation		Approval	State has certified that no facilities are known to exist in non-attainment areas
Solvent Metal Cleaning	7.18(8)	Provisions similar to those in CTG	1. OVTD with <1m^2 of open area 2. CD with <2m^2 of air/vapor interface	Approval	

STATE: MASSACHUSETTS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	7.18(9)	Prohibits use of cutback asphalt from May 1 through September 30	1. Use from 10/1 to 5/1 2. Use as a prime coat 3. long-term storage 4. When high temp is below 50°F for 24 hrs. after application 5. Duke and Nantucket Counties 6. Asphalt with <5% solvent evaporation at 500°F	Approval	
Surface Coating Miscellaneous Metal Parts	7.18(11)	Clear coating -4.3 lb VOC/gal (minus water) Air dried - 3.5 lbs VOC/gal (minus water) Extreme performance - 3.5 lbs VOC/gal (minus water) Other - 3.0 lbs VOC/gal (minus water)	Extensions to 12/31/85 allowed for sources that submitted a low/no VOC compliance schedule by 12/31/81	Approval	Applies to >25 TPY
Refinery Leaks					
Surface Coating Flatwood Panels					
Pharmaceutical Manufacture		No regulations		Approval	State has certified that no sources exist
Rubber tire Manufacture					

STATE: MASSACHUSETTS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts	7.18(12)	Volatile portion of ink, as applied to substrate ≥75% by volume of water or The ink (minus water) contains >60% by volume of non volatile materials or Owner/operator installs - Carbon adsorption system (90% reduction) - Incinerator system (90% reduction) - Alternative reduction system with 90% efficiency - Capture system (75% reduction for publication rotogravure, 65% for packaging rotagravure, 60% for flexographic printing)	Sources ≤ 100 TPY Extensions to 12/31/85 allowed for sources that submitted a low/no VOC compliance schedule by 12/31/81	Approval	
Petroleum Liquids in Floating Roof Tanks	7.02(12)(A)1E	Equivalent to CTG (requires seals or equivalent)	<40,000 gal	Approval	
Drycleaning - Perchloroethylene	7.18(13)	Vent dryer exhaust system through carbon adsorption or equivalent Limit emissions to 100 ppmv from dryer control device before dilution Repair leaks Treat all diatomaceous filters so residue contains ≤ 25 lbs perchloroethylene per 100 lbs wet waste materials	Coin operated facilities Inadequate space for carbon adsorbers Insufficient steam capacity to desorb adsorbers	Approval	

STATE: MASSACHUSETTS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene (Cont'd)		Reduce perchloroethylene from all solvent stills <60 lbs/100 lbs wet waste material Drain all filtration cartridges for at least 24 hrs before discarding			
Gasoline Tank Trucks	7.02(12) (A)6 & (C)	Certify leak tightness		Approval pending	
Non-CTG Sources	7.18(17)	Case-by-case RACT	Sources <100 TPY	Approval	Covers all sources emitting VOCs not covered by other sections of 310 CMR 7.18
Alternative Emission Limitations for VOCs (Bubble)	7.00 App. B	Bubbles must not violate NAAQS, applicable NSPS, NESHAPS, LAER, BACT, RFP Facility-specific bubbles: total emissions = mathematical equivalent of existing VOC limits under 7.02 or 7.18 or approved RACT; 24-hr. or monthly averaging Monthly averaging plans must contain a maximum quantity of emissions allowed in pounds per day (daily cap) Multifacility bubbles - for each 10 miles of straight-line distance between the two farthest-apart facilities, an additional 5% reduction in total VOCs beyond otherwise applicable RACT		Approval Pending	

NEW HAMPSHIRE

1204 Volatile Organic Compounds (VOC)

1204.01 Exemptions
1204.02 Process, process category, and equivalent defined
1203.03 Limits to applicability
1204.04 Emission standards for can coating
1204.05 Emission standards for paper fabric, film and foil coating
1204.06 Emission standard for vinyl top coating
1204.07 Emission standard for metal furniture coating
1204.08 Emission standard for magnet wire insulation coating
1204.09 Emission control methods for fixed-roof tank VOC storage
1204.10 Emission control methods for tank truck gasoline loading terminals
1204.11 Emission control methods for petroleum refineries
1204.12 Emission control methods for cutback asphalt
1204.13 Emission control methods for emulsified asphalt
1204.14 Emission control methods for solvent metal cold cleaners
1204.15 Emission control methods for solvent metal open top degreaser
1204.16 Emission control methods for solvent metal conveyorized degreasing
1204.17 Emission standards for miscellaneous metal parts and products
1204.18 Emission standard for printing
1204.19 Alternative control methods
1204.20 Permit requirements
1204.21 Compliance schedule

STATE: NEW HAMPSHIRE
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane; ethane; trichlorotrifluoroethane (Freon 113); 1,1,1-trichloroethane (methyl chloroform); methylene chloride; trichlorofluoromethane; dichlorodifluoromethane; chlorodifluoromethane; trifluoromethane; dichlorotetrafluoroethane; chloropentafluoroethane. Sources with potential to emit <100 TPY.

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating		No regulation		Approval	State has certified that no facilities are known to exist in nonattainment areas.
Surface Coating Cans	1204.04	2.8 lb VOC/gal (minus water) for use in interior and exterior sheet basecoating and overvarnish, or for two piece can exterior basecoat and overvarnish. 4.2 lb VOC/gal (minus water) for use in two and three piece can interior body spray, and two piece can end (spray or roll) coating. 5.5 lb VOC/gal (minus water)for use in three piece can side-seam spray operations. 3.7 lb VOC/gal (minus water) for use in end sealing compound operations.		Approval	
Surface Coating Metal Coils		No regulation		Approval	State has certified that no facilities are known to exist in nonattainment areas.
Surface Coating Paper and Fabrics	1204.05 1204.06	2.9 lb VOC/gal for paper/fabric, film and foil coating (minus water) 3.8 lb VOC/gal for vinyl top coating (minus water)	All printing and vinyl plastisol operations	Approval	

STATE: NEW HAMPSHIRE

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	1204.07	3.0 lb VOC/gal (minus water)		Approval	
Surface Coating Large Appliances		No regulation		Approval	State has certified that no facilities are known to exist in nonattainment areas.
Surface Coating of Insulation of Magnet Wire	1204.08	1.7 lb VOC/gal (minus water)		Approval	
Petroleum Liquids in Fixed Roof Tanks	1204.09	Retrofit tank with internal floating roof Equip all openings with covers or seals Maintain such seals free from holes Automatic blender and rim vents operated as designed	1. Tanks with capacities <40,000 gal 2. VOC's with vapor pressure <1.52 psia	Approval	
Bulk Gasoline Plants		No regulation		Approval	The SIP indicates that facilities in the three northern New England states are exempt.
Gasoline Loading Terminals	1204.10	80 mg VOC/liter of gasoline loaded All equipment leak tight	Facilities with throughputs <20000 gal	Approval	
Service Station Stage I		No regulation		Approval	The SIP indicates that facilities in the three northern New England states are exempt.

STATE: NEW HAMPSHIRE

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	1204.11	Vacuum producing systems emissions must be 1) piped to a firebox. 2) compressed and added to refinery fuel oil Wastewater separators must be covered and sealed at all times. Process unit turnarounds must provide for the depressurization of a process unit... until less than 19.7 psia. All equipment leak tight.		Approval	
Solvent Metal Cleaning	1204.14-16	Cold cleaners - similar to CTG OVTD - similar to CTG Conveyorized degreasers - similar to CTG		Approval	
Cutback Asphalt	1204.12, 1204.13	Use prohibited June through September	1. Penetrating prime coat 2. Long-period storage of patching mixes 3. Temperatures <50°F 4. Asphalts which demonstrate minimal emissions	Approval	
Refinery Leaks		No regulations		Approval	Requirements satisified in misc. refinery source regulation.
Surface Coating Miscellaneous Metal Parts	1204.17	Clear/transparent top coat- 4.3 lbs VOC/gal (minus water) Air dried 3.5 lbs VOC/gal (minus water) provided drying is at <194°F Severe environments - 3.5 lbs VOC/gal (minus water) Others - 3.0 lbs VOC/gal (minus water)	Refinishing of transportation equipment	Approval	

STATE: NEW HAMPSHIRE

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Graphic Arts	1204.18	Liquid fraction of ink applied to substrate ≥75% by volume of water		Approval	
Petroleum Liquids in Floating Roof Tanks					
Surface Coating Flatwood Panels					
Pharmaceutical Manufacture		No regulations		Approval	State has certified that no sources >100 TPY exist.
Rubber Tire Manufacture					
Drycleaning-Perchloroethylene					
Gasoline Tank Trucks					

RHODE ISLAND

APCR No. 11	Petroleum liquids marketing and storage
APCR No. 15	Control of organic solvent emissions
APCR No. 18	Control of solvent metal cleaning emissions
APCR No. 19	Control of volatile organic compounds from surface coating operations
APCR No. 21	Control of volatile organic compound emissions from printing operations

STATE: RHODE ISLAND
ATTAINMENT DATE: 1982
GEOGRAHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: None

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating Surface Coating Cans Surface Coating Metal Coils Surface Coating Metal Furniture Surface Coating Large Appliances Surface Coating Magnet Wire Miscellaneous Refinery Sources		No regulations		Approval	State has certified that no sources exist in State.
Surface Coating Paper	19.3	4.0 lb VOC/gal by 7/1/82 (minus water) 2.9 lb VOC/gal by 7/1/85 (minus water)	Sources which emit ≤100 TPY	Approval	Reg. No. 15 also addresses paper coating, fabric coating, metal coating, and vinyl coating, but is less stringent.
Surface Coating Fabrics	19.3	Fabric- 4.0 lb VOC/gal by 7/1/82 (minus water) 2.9 lb VOC/gal by 7/1/85 (minus water) Vinyl- 4.0 lb VOC/gal by 7/1/81 (minus water) 3.8 lb VOC/gal by 7/1/85 (minus water)	Sources which emit <100 TPY	Approval	

STATE: RHODE ISLAND

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	11.2	1.2 a) Utilize an internal floating roof...or b) Utilize an equally effective alternative control, and c) Seals maintained such that there are no visible holes, tears or openings d) All openings are equipped with covers e)-h) Other specific provisions	Tanks ≤4,000 gal	Approval	
Bulk Gasoline Plants	11.4	2.1 Vapor balance system and submerged fill pipe of bottom filling	Daily throughput <4000 gal	Approval	
Gasoline Loading Terminals	11.3	2.1 a) Vapor control system which processes and recovers at least 90%. b)-d) Vapor tight fittings, pipes and tanks 2.2 Emissions limited to 80 mg/liter	Daily throughput <20,000 gal	Approval	
Service Station Stage I	11.5	Vapor balance or other control system	Storage vessels with: 1) <2000 gallon capacity installed before 1/1/79 2) <250 gallon capacity installed after 7/5/79 3) facilities with annual throughputs <120,000 gal	Approval	

STATE: RHODE ISLAND

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	18	Consistent with CTG	1) Open top degreasers with <10 ft^2 open area 2) Conveyorized degreasers with <21.5 ft^2 air/vapor interface 3) Solvent with vapor pressure <0.6 psi at 100°F exempt from 18.3.1(c)	Approval	
Cutback Asphalt		No regulation		Approval	SIP states that no regulation is needed because total VOC emissions estimated to be <100 TPY. Committed to adopt regulation when any single county exceeds 100 TPY.
Refinery Leaks					
Rubber Tire Manufacture		No regulations		Approval	State has certified that no sources exist.
Surface Coating Flatwood Panels					

STATE: RHODE ISLAND

Category	Reg. No.	State Limit of Requirement	Exemptions	EPA Action	Comments
Surface Coating Miscellaneous Metal Parts Pharmaceutical Manufacture Drycleaning-Perchloroethylene Gasoline Tank Trucks		No regulations		Approval	Sources >100 TPY will be regulated by Reg. No. 15.
Graphic Arts	21	Volatile fraction of ink applied to substrate ≥75% by volume of water or ink >60% nonvolatile material Control device must have 90% reduction efficiency Capture system must be used with control system and have capture efficiencies of: - 75% publication rotogravure, - 65% for packaging rotogravure or specialty processes, and - 60% for flexographic printing.	Sources <100 TPY	Approval	
Petroleum Liquids in Floating Roof	11.6	Equivalent to CTG (requires secondary seals or equivalent)	<40,000 gal capacity tanks	Approval	
Non-CTG Sources	15	Case-by-case RACT	Sources <100 TPY	Approval	Applies to any unregulated source over 100 TPY.

REGION II

New Jersey

New York (New York City Metropolitan Area)

New York (Upstate)

NEW JERSEY

Volatile Organic Substances

7:27-16.1	Definitions
7:27-16.2	Storage of volatile organic substances
7:27-16.3	Transfer operations
7:27-16.4	Open top tanks and surface cleaners
7:27-16.5	Surface coating operations
7:27-16.6	Source operations other than storage tanks, transfers, open top tanks, surface cleaners, and surface coaters
7:27-16.7	Cutback and emulsified asphalts
7:27-16.8	Emission information and tests
7:27-16.9	Variances
7:27-16.10	Permit to construct and certificate to operate
7:27-16.11	Applicability
7:27-16.12	Exceptions

STATE: NEW JERSEY
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2-dichloro-1,1,2,2-tetrafluoroethane, and chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	7:27-16.5		lb/gal (minus water)	(c) 1) <1 gal/hr applied and <5 gal/day applied	Approval	See Notes 1 and 3
		Prime coat				
		electrophoretic dip	1.2			
		spray	2.8	(c) 2) research and development provided <2 gal/hr applied and <3 gal/day applied		
		Topcoat				
		spray	2.8			
		Repair				
		spray	4.8			
Surface Coating Cans	7:27-16.5	Type of Operation	lb/gal (minus water)	Same as Auto & Light Duty Truck Surface Coating	Approval	See Notes 1 and 3
		Sheet basecoat	2.8			
		Two piece can exterior	2.8			
		Two & three piece can interior body spray, two piece end exterior	4.2			
		Side seam spray	5.5			
		End sealing compound	3.7			
Surface Coating Metal Coils	7:27-16.5	2.6 lb/gal (minus water)		Same as Auto & Light Duty Truck Surface Coating	Approval	See Notes 1 and 3
Surface Coating Paper	7:27-16.5	2.9 lb/gal (minus water)		Same as Auto & Light Duty Truck Surface Coating	Approval	See Notes 1 and 3

STATE: NEW JERSEY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	7:27-16.5	2.9 lb/gal - fabric coating (minus water) 3.8 lb/gal - vinyl coating (minus water)	(c) 1) <1 gal/hr applied and <5 gal/day applied (c) 2) research and development provided <2 gal/hr applied and <3 gal/day applied	Approval	See Notes 1 and 3
Surface Coating Metal Furniture	7:27-16.5	3.0 lb/gal (minus water)	Same as Surface Coating Fabrics	Approval	See Notes 1 and 3
Surface Coating Large Appliances	7:27-16.5	2.8 lb/gal (minus water)	Same as Surface Coating Fabrics	Approval	See Notes 1 and 3
Surface Coating of Insulation of Magnet Wire	7:27-16.5	1.7 lb/gal (minus water)	Same as Surface Coating Fabrics	Approval	See Notes 1 and 3
Petroleum Liquids in Fixed Roof Tanks	7:27-16.2 (a)-(h)	(a) Paint VOS storage tanks white (b) Control apparatus as determined by Table 1 of The Regulation (c) for VOS with a vapor pressure >13 psia, 90% reduction in emission rate (d)-(g) other specific provisions	(a) <2000 gallon capacity tanks (b) <10,000 gallon capacity tanks (c) <1000 gallon capacity tanks	Approval	See Note 2

STATE: NEW JERSEY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	7:27-16.3 (a)-(e)(1)	(a) Submerged or equivalent facilities loading >4,000 ga/day but ≤15,000 gal day are required to use a vapor balance system during transfer of gasoline	Submerged fill not required on manufacturing vessels installed before 12/17/79	Approval	See Note 2
Gasoline Loading Terminals	7:27-16.3 (a)-(e)(2)	(a) Submerged fill pipe or equivalent facilities loading >15,000 gal/day must reduce VOS emissions by 90% or meet requirements of Table 2 in the reg. which allows a maximum of 80 mg/liter		Approval	See Note 2
Service Stations Stage I	7:27-16:3 (a)(c)	(a) Submerged fill (c) Requires use of vapor balance system, control system or floating roof during transfer of gasoline	(c) <2000 gallon capacity tanks	Approval	See Note 2 NJ justified the exemption by stating they were requiring Stage I in nonurban areas also. This additional control offsets the 2000 gallon exemption.

STATE: NEW JERSEY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	7:27-16.6	Max. allowable emissions based on vapor pressure and concentration of organic substance emitted; allows up to 15% of process emissions or 7 lb/hr, whichever is greater		Approval	
	7:27-16.4(i)	Oil/water separators must be covered			
Solvent Metal Cleaning	7:27-16.4	Essentially consistent with CTG		Approval	
Cutback Asphalt	7:27-16.7	Use of cutback paving asphalt and emulsified paving asphalt containing petroleum solvents is prohibited.	1) use during Oct15-April 15. 2) use as a penetrating prime coat 3) demonstration of no VOC emissions 4) emulsified asphalt <8% VOS, used for mixed-in-place construction 5) material is cold-mix, stockpile material used for pavement repair	Approval	
Refinery Leaks	7:27-16.6 (d)-(h)	Tests - annual, quarterly, immediately after repair Inspection - monthly, ≤24 hrs after venting Other operational requirements	<10,000 ppm by volume measured from 0.4 in. of source	Approval	

STATE: NEW JERSEY

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	7:27-16.5	Type of Operation	lb/gal (minus water)			
		Clear coating	4.3	(c) 1) <1 gal/hr applied and <5 gal/day applied	Approval	See Notes 1 and 3
		Air-dried coating	3.5			
		Extreme performance coating	3.5	2) research and development provided <2 gal/hr applied & <3 gal/day applied		
		All other coatings	3.0			
Surface Coating of Flatwood Paneling	7:27-16.5	Process	lb/gal (minus water)			
		Printed hardwood plywood panels and particleboard	2.7	Same as Surface Coating of Miscellaneous Metal Parts		See Notes 1 and 3
		Natural finish hardwood plywood	3.3			
		Hardboard panels	3.6			
Pharmaceutical Manufacture	7:27-16.6	Generic emission reduction requirements - Controls range from 85-99.7%			Approval	
Rubber Tire Manufacture		No specific regulations, but covered by 7:27-16.6 - Other Source Operations.				No Sources
Graphic Arts	7:27-16.5 (e)	Limitations set in Table 3D in Regulations Rotogravure - Collect at least 75% volume of source gas emitted and control at least 90% of VOS/hour Flexographic - Collect at least 70% volume of source gas emitted and control at least 90% of VOS/hour		Same as surface coating of miscellaneous metal parts	Approval	

STATE: NEW JERSEY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage Floating Roof Tank	7:27-16.2 (h)-(m)	(h) Control apparatus as determine in Table 1A (i) for VOS with a vapor pressure >1.5 psia, must have secondary and primary seal (l) All openings in roof covered when not in active use	(h) <40,000 gal (i) <40,000 gal (l) emergency roof drains	Approval	
Drycleaning - Perchloroethylene	7:27-17.3-9	Control equipment required Operational requirements consistant with CTG Emission tests	<.25% of raw material or finished product <0.1 lbs/hour	Approval	
Gasoline Tank Trucks	7:27-16.3 (f)-(k)	(f) Delivery vessels must pass pressure and vacuum tests to obtain certification (h) Concentration of emissions to atmosphere <100% of lower explosive limit of propane when measured 1.0 in. from source	<2,000 gal Storage <one month while holding tank is repaired Section 16.3 does not apply to the transfer of VOS into marine delivery vessels	Approval	
Other Source Operations	7:27-16.6	Maximum allowable emission rate as determined by Table 4 in regulations Control efficiencies required range from 85-99.7%		Approval	

STATE: NEW JERSEY

NOTES:
1. Reg. 7:27-16.5(b) requires new facilities to have a surface coating transfer efficiency of $\geq$60%.
2. Reg. 7:27-16.3(g) requires gasoline delivery vessels to be vapor tight.
3. Reg. 7:27-16.5(a) contains a formula to determine the maximum allowable hourly emission rate from maximum allowable volume emission figures.

62

NEW YORK

Part 211 Cutback Asphalt
Part 223 Petroleum refineries
Part 226 Solvent metal cleaning processes
Part 228 Surface coating processes
Part 229 Petroleum liquids, storage and transfer
Part 232 Control of volatile organic compound emissions from dry cleaning facilities
Part 233 Control of volatile organic compound emissions from pharmaceutical manufacturing processes
Part 234 Graphic arts

STATE: NEW YORK (New York City Metropolitan Area)
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: City of New York (5 Boroughs), Counties of Nassau, Suffolk, Rockland, Westchester

GENERAL EXEMPTIONS: Methane, Ethane, 1,1,1-Trichloroethane, Methylene Chloride, Freon 113, octamethylcyclotetrasiloxane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, 1,2-dichlorotetrafluoroethane, and chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	Table 1 228	Prime coat - 1.9 lb/gal (minus water) Primer-Surfacer, Topcoat - 2.8 lb/gal (minus water) Repair coats - 4.8 lb/gal (minus water)		Approval	
Surface Coating Can	Table 1 228	Sheet basecoat-exterior and interior overvarnish - 2.8 lb/gal (minus water) Two piece can exterior (basecoat and overvarnish), two and three piece can interior body spray - 4.2 lb/gal (minus water) Two piece can exterior end (spray or roll coat), three piece can side-seam spray - 5.5 lb/gal (minus water) End sealing compound - 3.7 lb/gal (minus water)		Approval	
Surface Coating Metal Coils	Table 1 228	2.6 lb/gal (minus water)		Approval	
Surface Coating Paper	Table 1 228	2.9 lb/gal (minus water)		Approval	
Surface Coating Fabrics	Table 1 228	Fabric coating line - 2.9 lb/gal (minus water) Vinyl coating line - 3.8 lb/gal (minus water)		Approval	

STATE: NEW YORK (New York City Metropolitan Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	Table 1 228	3.0 lb/gal (minus water)		Approval	
Surface Coating Large Appliances	Table 1 228	2.8 lb/gal (minus water)		Approval	
Surface Coating of Insulation of Magnet Wire	Table 1 228	1.7 lb/gal (minus water)		Approval	
Petroleum Liquids in Fixed Roof Tanks	229.3(a)	Internal floating roof or equivalent control Vapor collection and vapor control systems operated and maintained	Tanks <40,000 gal	Approval	
Bulk Gasoline Plants	229.3(b)	Submerged filling of vehicles. Vapor collection to control: a) VOC displaced by gasoline delivery to storage tanks b) VOC emitted by filling gasoline transport vehicles (Stage I) Vapor-tight system Requirements for vapor-collection system		Approval	
Gasoline Loading Terminals	229.3(c)	Vapor collection and vapor-control system with vapor tight seals Emission limit: 80 grams/1000 liters	<2000 gal daily throughputs	Approval	

STATE: NEW YORK (New York City Metropolitan Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	229.3(d)	Vapor collection system for ground storage tanks Submerged fill pipes	Stations with annual throughputs <120,000 Tanks <2000 gal installed before 1/1/70 Stage I requirements for stations used exclusively for fueling of implements of husbandry. Tank <250 gal	Approval	
Miscellaneous Refinery Sources	223.7	All noncondensible vapors from any vacuum producing system shall be piped into a firebox or incinerator or compressed and added to refinery fuel gas. All hot wells associated with contact condensers will be covered and vapors incinerated. All forebays and separators which recover 200 gal/day or greater shall be covered. Processing units shall be depressurized down to 5 psig and the VOC shall be vented to a vapor recovery system, fuel gas systems or flared.	Flaring to relieve pressure during operational upset	Approval	
Solvent Metal Cleaning	226.2	Cold cleaning - similar to CTG	OTVD <1.0m^2 of open area	Approval	
	226.3	OTVD - similar to CTG	Conveyorized degreasers <2m^2 air/vapor interface		
	226.4	Conveyorized degreasers - similar to CTG Lesser degree of control acceptable when proved RACT			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	211.4	Prohibited except for: a) production of long-life stockpile material b) application Oct. 16 - May 1 c) use as penetrating prime coat for paving d) use in the manufacture of asphalt emulsions which contain the following percent by weight: ASTM Grades — Percent VOC 1) RS-1, SS-1, SS-1h, CSS-1 CSS-1h — 2% 2) RS-2, CRS-1, CRS-2, HFRS-2, HFMS-2h — 3% 3) MS-2, HFMS-2 — 10% 4) CMS-2, CMS-2h — 12%		Approval	

STATE: NEW YORK (Upstate)
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Albany, Cayuga, Columbia, Dutchess, Erie, Genessee, Greene, Livingston, Monroe, Niagra, Onondaga, Ontario, Orange, Orleans, Putnam, Rensselaer, Saratoga, Schenectady, Seneca, Ulster, Wayne, Wyoming, and Yates Counties

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, methylene chloride, Freon 113, octamethyl-cyclotetrasiloxane, dichlorodifluoromethane, chlorodifluoromethane, chloro-pentafluoroethane, trichlorofluoromethane, trifluoromethane, and 1,2-dichloro-tetrafluoroethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	Table 1 228	Prime coat - 1.9 lb/gal (minus water) Primer-Surfacer, Topcoat - 2.8 lb/gal (minus water) Repair coat - 4.8 lb/gal	Facilities emitting <100 TPY and are located in non-attainment areas other than the New York City Metropolitan area.	Approval	
Surface Coating Cans	Table 1 228	Sheet basecoat-exterior and interior overvarnish - 2.8 lb/gal (minus water) Two piece can exterior (base-coat and overvarnish), two and three piece can interior body spray - 4.2 lb/gal (minus water) Two piece can exterior end (spray or roll coat), three piece can side-seam spray - 5.5 lb/gal (minus water) End sealing compound - 3.7 lb/gal (minus water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Metal Coils	Table 1 228	2.6 lb/gal (minus water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Paper	Table 1 228	2.9 lb/gal (minus water)	Same as Auto & Light Duty Truck Surface Coating	Approval	

STATE: NEW YORK (Upstate)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	Table 1 228	Fabric coating line - 2.9 lb/gal (minus water) Vinyl coating line - 3.8 lb/gal (minus water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Metal Furniture	Table 1 228	3.0 lb/gal (minus water)	Facilities emitting ≤100 TPY and are located in non-attainment areas other than the New York City Metropolitan area	Approval	
Surface Coating Large Applicances	Table 1 228	2.8 lb/gal (minus water)	Same as Surface Coating Metal Furniture	Approval	
Surface Coating of Insulation of Magnet Wire	Table 1 228	1.7 lb/gal (minus water)	Same as Surface Coating Metal Furniture	Approval	
Petroleum Liquids in Fixed Roof Tanks	229.3(a)	Internal floating roof, or equivalent control system Vapor collection and vapor control systems operated and maintained	1) Tanks <40,000 gallons, and facilities with potential to emit <100 TPY	Approval	
Bulk Gasoline Plants	229.3(b)	Submerged filling of vehicles Vapor collection system if servicing Stage I service stations to control: a) VOC displaced by gasoline delivery to storage tanks b) VOC displaced by filling transport vehicles Vapor-tight system Requirements for vapor-collection system		Approval	

STATE: NEW YORK (Upstate)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	229.3(c)	Vapor collection and vapor/control system with vapor tight seals Emission limit: 80 grams per 1000 liters	Terminals with potential to emit <100 TPY	Approval	
Service Stations Stage I		No regulation		Approval	
Miscellaneous Refinery Sources	223.7	All noncondensible vapors from any vacuum producing system shall be piped to a firebox or incinerator, or compressed and added to refinery fuel gas. All hot wells associated with contact condensers will be covered and vapors incinerated. All forebays and separators which recover 200 gal/day or greater shall be covered. Processing units shall be depressurized down to 5 psig and the VOC shall be vented to a vapor recovery system, fuel gas system, or flared.	Flaring to relieve pressure during operational upset	Approval	
Solvent Metal Cleaning	226.2 226.3 226.4	Cold cleaning - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG Lesser degree of control is acceptable when proved RACT	OTVD <1.0m^2 of open area Conveyorized degreasers <2m^2 air/vapor interface	Approval	

STATE: NEW YORK (Upstate)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	211.4	Prohibited except for: 1) production of long-life stockpile material 2) application (Oct. 16 - May 1 3) use as a penetrating prime coat for paving 4) use in manufacture of asphalt emulsions which contain the following percent of VOC by weight: ASTM Grade — Percent VOC RS-1, SS-1, SS-1h, CSS-1, CSS-1h — 2% RS-2, CRS-1, CRS-2, HFRS-2, HFMS-2h — 3% MS-2, HFMS-2 — 10% CMS-2, CMS-2h — 12%		Approval	

STATE: NEW YORK (Upstate and Metropolitan Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	223.10	Leak - VOC conc ≥10,000 ppm Repair within 15 working days or as soon as unit turnaround allows for repair - These leaks must be tagged Develop, conduct monitoring program Monitor - annually, quarterly, monthly, weekly, immediately after venting, immediately a detected leak, and ≤72 hours after repair Recording, reporting requirements consistent with CTG		Approval	
Surface Coating of Miscellaneous Metal Parts	228.7 Table 1	Process — Max. Organic Solvent lb/gal (minus water) Clear coatings — 4.3 Air dried (forced) — 3.5 Extreme performance — 3.5 All other coatings — 3.0	Low volume specialty coatings <5% of total annual coating line	Approval	
Surface Coating of Flatwood Paneling	228.8 Table 2	Process — Max. Organic Solvent lb/gal (minus water) Printed interior panels made of hardwood, plywood — 6.0 Natural finish hardwood plywood panels — 12.0 Hardboard paneling finishes that meet VPS PS-59-73 — 10.0	<100 TPY in upstate nonattainment areas	Approval	

STATE: NEW YORK (Upstate and Metropolitan Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	233	Surface condensors: - Specific temperature and pressure requirements - Allowable exit temperature raised $\leq 2^{o}C$ max. if necessary Emission requirements for air dryer exhaust system in Figure 1 Vapor balance control system of $\geq$90% efficiency Pressure/vacuum conservation vents set at 0.03 psi Enclose exposed liquid surfaces Covers on all openings Repair leaks as soon as is practical Lesser control acceptable if approved RACT Continous monitoring of specified process equipment	<100 TPY for facilities in upstate nonattainment areas Equipment emitting <15 lb/day VOC vp <4.1 psi at 20°C <2,000 gal capacity storage vessels vp <1.5 psi at $20^{o}C$	Approval	
Ruber Tire Manufacture	There is only one source in the State. New York has been approved to use an individually determined control program based on Part 212 (Processes and Exhaust and/or Ventilation Systems) requirements. If new sources locate in State, must meet requirements associated with New Source Performance Standards or RACT.			Approval	
Graphic Arts	234	Ink: 1) volatile fraction is -$\leq$25% by volume organic solvent and -$\geq$75% by volume water 2) $\geq$60% non-volatile material	<100 TPY VOC	Approval	

STATE: NEW YORK (Upstate and Metropolitan Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (Cont'd)	234	Capture system and air cleaning device reduce VOC emissions at least: - 75% - rotogravure process - (publication) - 65% - rotogravure process (packaging) - 60% - flexographic process Testing and monitoring processes required Facility-wide emission reduction plan is permissible if complys with specifications			
Petroleum Liquid Storage Floating Roof Tank in		No regulations			Under development
Dry Cleaning Perchloroethylene	232	Emissions vented through condensor and/or carbon adsorption system Limit exhaust to ≤100 ppm conc. Filtration: ≤25% VOC in residue from diatomaceous earth filters 60% VOC in wet waste from solvent stills Cartridges drained for ≥24 hrs before being discarded	<100 TPY for all areas except New York Metro Area In NYMA, all facilities must comply, no exemptions Existing facilities require condensor or carbon adsorption system	Approval Pending	
Gasoline Tank Trucks		No regulations			Under development

REGION III

Delaware

District of Columbia

Maryland

Pennsylvania

Virginia

West Virginia

NOTE: The entire State of West Virginia has been classified as an attainment area for ozone. The State has regulations for three source categories. These are included as additional information for the reader.

DELAWARE

Regulation No. XXIV Control of Volatile Organic Compound Emissions

Section 1. General provisions
Section 2. Petition for alternative control (reserved)
Section 3. Disposal of volatile organic compounds (reserved)
Section 4. Gasoline dispensing facilities - Stage I
Section 5. Delivery vessels
Section 6. Bulk gasoline plants
Section 7. Bulk gasoline terminals
Section 8. Petroleum liquid storage
Section 9. Surface coating operations
Section 10. Miscellaneous petroleum refinery sources
Section 11. Solvent metal cleaning
Section 12. Cutback asphalt
Section 13. Dry cleaning
Section 14. Petroleum refinery component leaks
Section 15. Rotagravure and flexographic printing
Section 16. Manufacture of synthesized pharmaceutical products

STATE: DELAWARE
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: New Castle County

GENERAL EXEMPTIONS: 1) Sources emitting ≤10 lb/day, except solvent metal cleaning sources; 2) sources of methane, ethane, trichlorotrifluoroethane, methyl chloroform or methylene chloride; 3) sources located in Kent or Sussex Counties; and 4) conforming sanitary landfills.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	XXIV Section 9	lb VOC/gal (minus water) Effective Yr Lacquer Coatings — 78-83 / 83 84 / 85 Prime coat: 1.2 Surfacer: 3.0 / 2.8 Topcoat: 5.0 / 2.8 Final repair: 6.5 / 4.8 Enamel Coatings Prime coat/ surfacer: 4.2 / 3.4 / 1.4 Topcoat: 3.9 / 3.0 / 2.8 Final repair: 4.8	Coating lines emitting <40 lb/day per facility	Approval	
Surface Coating Cans		No regulation		Approval	The State has certified that no facilities are known to exist in the nonattainment area.
Surface Coating Metal Coils	XXIV Section 9.3	2.6 lb VOC/gal (minus water) - effective 1982	Coating lines emitting <40 lb/day per facility	Approval	
Surface Coating Paper	XXIV Section 9.3	2.9 lb VOC/gal (minus water) - effective 1982	Coating lines emitting <40 lb/day per facility	Approval	

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	XXIV Section 9.3	Fabric - 2.9 lb VOC/gal (minus water) Vinyl - 3.0 lb VOC/gal minus water) both effective 1982	Coating lines emitting <40 lb/day per facility	Approval	
Surface Coating Metal Furniture	XXIV Section 9.3	3.0 lb VOC/gal (minus water) - effective 1978	Coating lines emitting <40 lb/day per facility	Approval	
Surface Coating Large Appliances	XXIV Section 9.3	2.8 lb VOC/gal (minus water) - effective 1982	Same as Surface Coating Metal Furniture		
Surface Coating of Insulation of Magnet Wire		No regulation		Approval	State has certified that no facilities are known to exist in the nonattainment area
Petroleum Liquids in Fixed Roof Tanks	XXIV Section 8	Floating roofs with seals, no visible holes in seals, or equivalent control Covers on all openings	≤40,000 gallon tanks and petroleum liquids with <1.5 psia true vapor pressure.	Approval	

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	XXIV Section 6	Submerged fill and vapor balance or equivalent control ≥90% efficient Vapor-tight requirement ≤100% LEL of propane when measured at periphery of potential leak Repair within 5 days of leak detection Pressure requirements		Approval	
Gasoline Loading Terminals	XXIV Section 7	Vapor recovery system, emissions limited to 80 mg/liter, and other specific requirements Test procedures to determine compliance. Compliance with tank truck pressure relief settings ≤100% LEL propane when measured at periphery of potential leak. Repair within 5 days of leak detection		Approval	
Service Stations Stage I	XXIV Section 4	Vapor balance or recovery system ≥90% efficient Vapor-tight delivery vessel and collection line.	Tanks with a capacity of ≤2000 gal.	Approval	

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	XXIV Section 10	Controls on vacuum producing systems, covers on wastewater separators, and other specific provisions. Controlled depressurization of a process unit to 5 psig or less prior to a process unit turnaround		Approval	
Solvent Metal Cleaning	XXIV Section 11	Requirements similar to CTG - Cold cleaning facilities - Open top vapor degreasers - Conveyorized degreasers Test procedures to determine compliance		Approval	
Cutback Asphalt	XXIV Section 12	Use of cutback asphalt is prohibited from May 1 to September 30, and otherwise, only in emergency situations Solvent constituents of emulsified asphalt $\leq$7% by volume		Approval	
Refinery Leaks	XXIV Section 14	Test and record leaks with conc. $\geq$10,000 ppm Repair and retest leaking components as soon as possible but <15 days Monitoring - yearly, quarterly, weekly, within 24 hrs. when leak observed, relief valve vented, and after repair	VOC liquid with vp $\leq$0.1 psia	Approval	
Surface Coating of Miscellaneous Metal Parts	XXIV Section 9	If incineration system used, must oxidize 90% of VOC to CO_2 and H_2O. Overall VOC reduction efficiency >80% Drying (Forced Air) 3.5 lb VOC/gal (minus water) Extreme Performance 3.5 lb VOC/gal (minus water) All Others 3.0 lb VOC/gal (minus water)	Coating lines emitting <40 lb/day per facility	Approval	

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Flatwood Paneling	-	No regulation	-	-	-
Pharmaceutical Manufacture	XXIV Section 16	Surface condensors or equivalent control - specific provisions Exhaust systems and air dryers emit VOC reduced: ≥90% if ≥330 lb/day emissions ≤15 lb/day if <330 lb/day emissions Requirements for storage tanks: - pressure/vacuum conservation vents - enclose processes with exposed liquid surfaces - cover in-process tanks Repair leaks as soon as possible Test procedures to determine compliance	Sources of VOC emit <15 lb/day	Approval	
Rubber Tire Manufacturer	-	No regulation	-	-	-
Graphic Arts	XXIV Section 15	Inks: - Waterborne - ≤25% organic solvent and ≥75% water - High solids - ≥60% non-volatile material (minus water) Fume capture and add-on control system such that VOC reduced - ≥75% from publication rotogravure - ≥65% from packaging rotogravure - ≥60% from flexography	<7.7 tons ink/year	Approval	Alternate Emission Reduction Plan is available

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage-Floating Roof Tank	XXIV Section 8	If external, must have a rim-mounted secondary seal which covers entire primary seal; few exceptions are noted All openings covered and with a projection below liquid surface - No visible holes, tears, openings - Intact, uniform - >1/8 in gap accumulate to ≤1.0 in 2/ft Routine inspections required	<40,000 gal capacity with liquid with TVP <0.5 psia	Approval	
Drycleaning - Perchloroethylene	XXIV Section 13	Maintenance requirements: - Immediate repair of leaks - ≤24 lb VOC/100 lb wet waste from diatomaceous earth filters - ≤60 lb VOC/100 lb wet waste from solvent stills - Filters drained ≥24 hrs before discarding Exhaust vented through control device-emit ≤100 ppm VOC before dilution Required testing to determine compliance		Approval	

STATE: DELAWARE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	XXIV Sections 4-5	Section 4: - No detectable leaks - Pressure change restrictions - ≤100% LEL of propane at periphery of potential leak source - 15 days to repair leaks Section 5: - Vapor-tight requirement - Loading only at buik gasoline terminals or plants - Vapor balance system requirements - Operating permits, testing for certification and to determine compliance	Certified delivery vessel to ≤2000 gal tanks	Approval	

DISTRICT OF COLUMBIA

Section 8-2:707 Control of Organic Compounds

(a) Storage of petroleum products
(b) Volatile organic compounds or gasoline loading into tank trucks, trailers and railroad tank cars
(c) Volatile organic compounds or gasoline transfer vapor control
(d) Control of evaporative losses from the filling of vehicular fuel tanks
(e) Dry cleaning operation
(f) Organic solvents
(g) Pumps and compressors
(h) Waste gas disposal from ethylene producing plant
(i) Waste gas disposal from vapor blow-down system
(j) Solvent cleaning (degreasing)
(k) Asphalt operations

STATE: DISTRICT OF COLUMBIA
ATTAINMENT DATE: 1987 (based on 0.08 ppm)
GEOGRAPHIC COVERAGE: Washington, DC

GENERAL EXEMPTIONS: 1,1,1-Trichloroethane, Freon 113, methylene chloride

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating Surface Coating Cans Surface Coating Metal Coils Surface Coating Paper Surface Coating Fabrics Surface Coating Metal Furniture Surface Coating Large Appliances Surface Coating of Insulation of Magnet Wire Miscellaneous Refinery Sources		No regulations		Approval	District has certified that no sources are known to exist in the nonattainment area.
Petroleum Liquids in Fixed Roof Tanks	8-2:707(a)	Floating roof, or vapor control system; if VP $\leq$11.0 psia Gas-tight gauging and sampling devices	Tanks <40,000 gallons Distillate with VP <1.5 psia	Approval	SIP covers storage of petroleum products and is applicable to Fixed Roof Tanks, Bulk Gasoline Plants and Gasoline Loading Terminals.

STATE: DISTRICT OF COLUMBIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	8-2:707(a) 8-2:707(b)	Loading of trucks or trailers: vapor recovery system with 90% efficiency. Loading arm must have vapor collecting adaptor. There shall be a vapor tight seal between adaptor and hatch. Pressure tank, floating roof, or vapor recovery system.		Approval	SIP covers storage of petroleum products and is applicable to Fixed Roof Tanks, Bulk Gasoline Plants and Gasoline Loading Terminals.
Gasoline Loading Terminals	8-2:707(a) 8-2:707(b)	Same as Bulk Gasoline Plants		Approval	
Service Stations Stage I	8-2:707(d)	Submerged fill pipe, and vapors displaced must be collected by a vapor recovery system with at least 90% efficiency		Approval	SIP requires Stage II Controls as well
Solvent Metal Cleaning	8-2:707(j)	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG		Approval	
Cutback Asphalt	8-2:707(k)	Prohibited use from April through September	Except in specific circumstances where the Mayor makes the decision to allow its use.	Approval	

STATE: DISTRICT OF COLUMBIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks Surface Coating of Miscellaneous Metal Parts Surface Coating of Flatwood Paneling Pharmaceutical Manufacture Rubber Tire Manufacture Graphic Arts Petroleum Liquid Storage-Floating Roof Tank Drycleaning-Perchloroethylene		No regulations			
Gasoline Tank Trucks	8-2:707(c)	Vapor-tight vapor return system Trucks refilled only at facilities where 90% VOC vapors displaced during refilling Testing for compliance with leak standards; subsequent certification Vapor-tight requirement	Containers with <2,000 gal installed prior to promulgation of this paragrpah, provided, said containers equipped with submerged fill pipes Transfers to storage tanks equipped with floating roofs or equivalent Transfer to containers <250 gal.	Approval	

STATE: DISTRICT OF COLUMBIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations-Stage II	8-2:707(d)	"Vapor-tight vapor return system", vapor-tight seal required. Specific requirements for fill nozzle, vapor return line, gasoline dispensing system		Approval	
Petroleum Dry Cleaners	8-2:707(e)	≤85% reduction of uncontrolled organic emissions Incineration used as control: ≥90% carbon oxidized to CO_2	Perchloroethylene, 1,1,1-trichloroethane, or saturated halogenated hydrocarbons Emit <3 lb/hr and <15 lb/day	Approval	
Organic Solvents	8-2:707(f)	Photochemically reactive solvents: ≤15 lb/day or ≤3 lb/hour emitted into atmosphere unless uncontrolled organic emissions are reduced by at least 85% Non-photochemically reactive solvents: ≤40 lb/day; ≤8 lb/hour emitted into atmosphere unless uncontrolled organic emissions ≥85% reduced	Dry cleaning operations	Approval	Applicable to any article, machine, equipment or other contrivance
Waste Gas Disposal from Ethylene Producing Plant	8-2:707(h)	<20 lb/day emitted unless waste gas stream burned at 1,300 °F for ≥0.3 seconds	Accidental or emergency emissions of hydrocarbons	Approval	
Waste Gas Disposal from Vapor Blow-Down System	8-2:707(i)	No emission of hydrocarbon gases unless burned by smokeless flares or equally effective approved control device	Accidental or emergency emissions of hydrocarbons	Approval	

10.18.06 General Emission Standards, Prohibitions, and Restrictions

.06 Volatile organic compounds

10.18.11 Control of Petroleum Refineries and Petroleum Product Installations, including Asphalt Paving, Asphalt Concrete Plants, Motor Vehicle Fuel Storage, and Use of Waste Oils

.02 Asphalt paving
.04 Petroleum refineries

10.18.13 Control of Gasoline and Volatile Organic Compound Storage and Handling

.01 Definitions
.02 Applicability
.03 Large storage tanks
.04 Loading operations in areas III an IV
.05 Gasoline leaks from tank trucks and vapor control system in areas III and IV

10.18.21 Volatile Organic Compounds from Specific Processes

.01 Definitions
.02 Applicability, determining compliance, and reporting
.03 Automotive and light-duty coating
.04 Can coating
.05 Coil coating
.06 Large appliance coating
.07 Paper, fabric, and vinyl coating
.08 Metal furniture coating
.09 Volatile organic compound metal cleaning
.10 Graphic Arts
.11 [Reserved]
.12 Dry cleaning facilities
.13 Miscellaneous metal coating
.14 Manufacture of synthesized pharmaceutical products

STATE: MARYLAND
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Anne Arundel, Baltimore, Carroll, Harford, Howard, Montgomery. Prince Georges, and Washington Counties, and the City of Baltimore

GENERAL EXEMPTIONS: Methyl Chloroform, Freon 113

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	10.18.21.03	lb/gal minus water Prime coat 1.2 Primer surface 2.8 Topcoat 2.8 Final repair 4.8		Approval	
Surface Coating Cans	10.18.21.04	lb/gal minus water Sheet basecoat (ext. & int. overvarnish, or two piece can exterior), basecoat & overvarnish 2.8 Two and three piece interior body spray, two piece can exterior end coating 4.2 Three piece can side seam spray 5.5 End seal compound coating 3.7		Approval	
Surface Coating Metal Coils	10.18.21.05	2.6 lb/gal of coating, minus water		Approval	
Surface Coating Paper	10.18.21.07	2.9 lb/gal of coating, minus water		Approval	

STATE: MARYLAND

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	10.18.21.07	Fabric coating - 2.9 lb/gal of coating, minus water Vinyl coating - 3.8 lb/gal of coating, minus water		Approval	
Surface Coating Metal Furniture	10.18.21.08	3.0 lb/gal of coating, minus water		Approval	
Surface Coating Large Applicances	10.18.21.06	2.8 lb/gal of coating, minus water	Quick-drying lacquers for repair of nicks and scatches	Approval	
Surface Coating of Insulation of Magnet Wire		No regulations		Approval	The State has certfied that no facilities exist in the nonattainment areas.
Miscellaneous Refinery Sources					
Petroleum Liquids in Fixed Roof Tanks	10.18.13.03A	True V.P. $\leq$11 psia equipped with floating roof and seals, pressure tank, vapor recovery system, or other equipment of equal or greater efficiency	VOC has TVP <1.5 psia $\leq$40,000 gal. capacity built before 5/18/78	Approval	

STATE: MARYLAND

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	10.18.13.05B	(B)(1)(a) Tank trucks must maintain a pressure change of not more than 3 inches of water in 5 minutes when pressurized to a gauge pressure of 18 inches of water, or evacuated to a gauge pressure of 18 inches of water. (a) Vapor control system requirements and gasoline loading equipment to prevent exceedance of gauge pressure in (B)(1)(a).		Approval	
Gasoline Loading Terminals	10.18.13.04A	Vapor recovery system equipped with fittings which are vapor tight and will automaticaly close upon disconnection so as to prevent release of VOC from these fittings.	Existing system <40,000 gal/day throughput New system ≤20,000 gal/day throughput	Approval	
Service Stations Stage I	10.18.13.04B (1)	Vapor blance system capable of at least 90% control of emissions or an equally effective vapor discharge control system	<20,000 gal monthly avg. throughput	Approval	
Solvent Metal Cleaning	10.18.21.09	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG No VOC metal cleaning without utilizing equipment and procedures in MSAQP TM 78-010	OTVD - ≤10.8 ft^2 Conveyorized degreasers - <21.5 ft^2	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	10.18.11.02	Prohibited from use	Long-life stockpile storage is necessary The use or application from October 15 through April 15 as necessary Use solely as a penetrating prime coat	Approval	
Refinery Leaks	10.18.11.04(C)	Leaking Components - Repair leak within 15 days - Tag and identify leaking components Monitoring - Annually, quarterly, weekly, Inspection - immediately when seal is leaking liquid; immediately after repair of leaking component, ≤24 hours after venting. Other operational requirements	Refinery discharge <10,000 ppm	Approval	
Surface Coating of Miscellaneous Metal Parts	10.18.21.13	Emissions Standards: Coating Types — lbs/gal of Coating Applied (minus water) High Performance — 3.5 Clear Coating — 4.3 Standard — 3.0	<20 lb/day VOC Operations covered by Reg. .03-.10 of this chapter	Approval	

STATE: MARYLAND

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Flatwood Paneling		No regulations			
Pharmaceutical Manufacture	10.18.21.14	Limitations on outlet gas temperature with varying psia of VOC 90% reduction of VOC discharge of 40 lbs/day VOC Vapor balance system, 90% efficient in reduction of VOC emissions; or pressure - conservation vents set at .05 psia Enclose or cover centrifuge and filters which contain VOCs. Repair leaks as expeditiously as possible	Potential Emissions of <15 lb/day of VOC <2000 gal capacity, <VOC with <1.5 psia		
Rubber Tire Manufacture		No regulations			
Graphic Arts	10.18.21.10	<550 lbs/day VOC emissions unless discharge is reduced by: Flexography 60% Packaging 65% Publication 75% <15 lbs/day VOC emissions from web printing unless discharge is reduced by ≥85%	Roll printing if VOC content of ink is ≤25% by volume if mixed with water ≤ 40% by volume Textile printing Web printing having a hot-air high velocity dryer and condensing-electrostatic precipitator control device installed before 1-1-79.	Approval	

STATE: MARYLAND

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storge, Floating Roof Tank	10.18.13.03B	For VOC wth TVP $\leq$11 psia: - Continuous rim-mounted secondary seal - no holes, tears, openings - uniform and intact seal - >1/8 in gap accumulate <1.0 in^2/ft Openings covered when not in use Semiannual inspections and testing	VOC with TVP <1.5 psia $\leq$40,000 gal capacity	Approval	
Drycleaning - Perchloroethylene	10.18.21.12	Vent exhaust through control method 90% efficient reduction in VOC emissions or <100 ppmv of VOC emitted Diatomaceous earth filters - <25 Kg of VOC/100 Kg wet waste Still bottoms - <60 Kg VOC/100 Kg wet waste Drain filtration cartridges for $\geq$24 hrs before discarding	$\leq$55 gal/month of perchloroethylene	Approval	
Gasoline Tank Trucks	10.18.13.05	Pressure change restrictions Delivery vessels must pass pressure and vacuum tests to obtain certification each year Concentration of emissions to atmos. $\leq$100% of lower explosive limit of propane when measured 1.0 in from source			
	NOTES:	1. Emission standard can also be achieved by incineration, provided 90% of VOC is oxidized to CO_2 and H_2O, or by an equally efficient control sytem.			

PENNSYLVANIA

Sources of Volatile Organic Compounds

129.51	General
129.52	Surface coating processes
129.53	Alternative standards allowing internal effects for surface coating facilities
129.54	Seasonal operation of auxiliary incineration equipment
129.55	Petroleum refineries - specific sources
129.56	Storage tanks greater than 40,000 gallons (152,000 liters) capacity containing volatile organic compounds
129.57	Storage tanks less than or equal to 40,000 gallons (152,000 liters) capacity containing volatile organic compounds
129.58	Petroleum refineries - fugitive sources
129.59	Bulk gasoline terminals
129.60	Bulk gasoline plants
129.61	Small gasoline storage tank control (stage I control)
129.62	General standards for bulk gasoline terminals, bulk gasoline plants, and small gasoline storage tanks
129.63	Degreasing operations
129.64	Cutback asphalt paving
129.65	Ethylene production plants
129.66	Compliance schedules and final compliance dates
129.67	Graphic arts systems
129.68	Manufacture of sythensized pharmaceutical products
129.69	Manufacture of pneumatic rubber tires
129.70	Perchloroethylene dry cleaning facilities

STATE: PENNSYLVANIA
ATTAINMENT DATE: 1982, except for Allegheny, Armstrong, Beaver, Butler, Bucks, Chester, Delaware, Lehigh, Northampton, Philadelphia, Montgomery, Washington, and Westmoreland Counties, 1987.
GEOGRAPHIC COVERAGE: Statewide (See Note 2)

GENERAL EXEMPTIONS: None

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	129.52	lb VOC/gal (minus water) Prime coat 1.92 Top coat 2.84 Repair 4.84	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Cans	129.52	lb VOC/gal (minus water) Sheet basecoat 2.84 Two piece can exterior 2.84 Two and three piece can interior body spray 4.25 Two piece can end exterior 4.25 Side seam spray 5.51 End sealing compound 3.67	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Metal Coils	129.52	2.60 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Paper	129.52	2.92 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Fabrics	129.52	Fabric - 2.92 lb VOC/gal (minus water) Vinyl - 3.76 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Metal Furniture	129.52	3.00 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating Large Appliances	129.52	2.84 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1

STATE: PENNSYLVANIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Insulation of Magnet Wire	129.52	1.67 lb VOC/gal (minus water)	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Petroleum Liquids in Fixed Roof Tanks	129.56	Pressure tank capable of maintaining working pressure or control devices: 1. external/internal floating roof for VOC with vp ≤11.0 psia 2. ≥80% efficient vapor recovery system	Storage tanks with a capacity of ≤40,000 gal and petroleum liquids with a vapor pressure ≤4.5 psia at storage conditions	Approval	See Note 3
Petroleum Liquids in Small Fixed Roof Tanks	129.57	Pressure relief valves set to release at ≥0.7 psig of pressure or ≥0.3 psig of vacuum	<2,000 gal capacity >40,000 gal capacity with vp ≤1.5 psia	Approval	See Note 3
Bulk Gasoline Plants	129.60	Vapor balance systems on tanks in plants with an average daily throughput of >12,000 gallons for deliveries to the bulk plant and an average daily throughput of >16,000 gallons for transfer from the bulk plant to delivery trucks	Delivery truck tanks with ≤250 gallon capacity	Approval	Applies to all plants regardless of size, which either 1) service tanks controlled under §129.61 or 2) are located in area controlled in §129.61(a) See Note 3
Gasoline Loading Terminals	129.59	A vapor collection and disposal system which controls emissions to ≤0.0668 lb/100 gal of gasoline loaded. Vapor - tight seal between the adaptor and the latch of the tank	Delivery truck tanks with ≤250 gallon capacity	Approval	See Note 3

STATE: PENNSYLVANIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	129.61	Vapor balance system	Tanks with <2000 gal capacity Facilities with <60,000 gal. annual throughput	Approval	Regulation is applicable in 15 counties and the Harrisburg Area Transportation Study area. See Note 3
Miscellaneous Refinery Sources	129.55	a) vapor loss control devices on wastewater separators receiving 200 gal/day or more VOC b) mechanical seals on pumps and compressors with vp >1.5 psi c) >90% efficient method to control VOC emission from vacuum producing system, i.e., piping vapors to firebox, incinerator, add to refinery fuel gas d) control VOC emissions from depressurization during process unit turnarounds until the internal pressure of affected equipment is <19.7 psia.		Approval	
Solvent Metal Cleaning	129.63	Provisions are similar to CTG	Conveyorized and cold cleaning degreasers with openings ≤ 10 ft_2	Approval	
Cutback Asphalt	129.64	Prohibits use of cutback asphalt Limits percentage of solvent in emulsion asphalts	1) long-life stockpile storage; 2) use between 10/31 and 4/30, as necessary; 3) use as a penetrating prime coat, tack coat, dust palliative or precoating of aggreate 4) limited skin patching in October	Approval	

STATE: PENNSYLVANIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	129.58	Test and record all leaking components with VOC conc. >10,000 ppm Repair, retest said components as soon as possible - within 15 days Monitoring checks annually, quarterly, monthly, <24 hours from observation of dripping from seal Other operational requirements		Approval	
Surface Coating of Miscellaneous Metal Parts	129.52	lb VOC/gal (minus water) Railroad cars 4.30 Pail and drum interiors 4.30 Clear coatings 4.30 Air-dried coatings 3.50 Extreme performance 3.50 All other coatings 3.00	facilities emitting ≤500 lb/day or 50 TPY	Approval	See Note 1
Surface Coating of Flatwood Panels		No regulations			
Petroleum Liquids in Floating Roof Tank	129.56	Primary and rim-mounted secondary seal - no holes, tears, openings - uniform and intact seals - >1/8 in gaps total <1.0 in /ft Opening shall have closed covers Other operational requirements	<40,000 gal. capacity	Approval	See Note 3

STATE: PENNSYLVANIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture	129.69	Capture system 85% efficient control device: 1) carbon adsorption system - 95% efficient 2) incineration system - 90% efficient oxidation of non-methane VOC For green-tire spraying operations: 1) water-based spray ≤5% VOC 2) 90% efficient capture system Overall compliance by limiting emissions to 0.161 lbs/tire	<5,000 rubber tires/day and emit <100 TPY VOC Production of specialty tires on short-run or irregular basis	Approval	
Graphic Arts	129.67	Ink: - Volatile fraction <25% water ≥75% - ≥60% (minus water) is non-volatile material Reduction system such that 90% of VOC are recovered or destroyed Capture system of: 75% efficiency in publication rotogravure process, 65% efficiency in other rotogravure process, 60% efficiency in flexographic process	<1000 lb/day or <100 TPY emitted Presses used only to check quality of image formation	Approval	
Pharmaceutical Manufacture	129.68	Control emissions of processes that emit ≥15 lb/day Conditions (temperature, pressure) for use of surface condensers Emissions from air dryers and exhaust systems controlled - by 85% if emit ≥220 lb/day VOC - to ≤33 lb/day if emit <220 lb/day VOC Enclose operations where liquid contains VOC of vp ≥0.5 psi at 20°C	Facilities emitting <50 TPY	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	129.70	Emissions vented through condenser or carbon adsorption system Filters - 1) ≤25% VOC from diatomaceous earth filters 2) ≤60% VOC in wet waste material from solvent stills 3) All drained for ≤24 hrs before discarding Repair of units leaking VOC ≤24 hrs of discovery	<100 TPY VOC emitted	Approval	Applicable in 15 counties and in Harrisburg area Transportation study area
Gasoline Tank Trucks	129.62	Vapor balance system: - Pressure change restrictions - <100% LEL of propane measured 1 inch from potential leak source No visually- or audibly-detectable leaks Relief valves set to release ≥0.7 psig of pressure or ≥0.3 psig of vacuum Testing and certification requirements for trucks loading in area specified in Section 129.61(a)	Trucks with <4800 gal capacity exempt from subsections (c) and (d) of this section	Approval	
Ethylene Production Plants	129.65	No emission unless gas stream is burned at ≥1300°F for at least 0.3 seconds Gases burned by smokeless flares		Approval	

NOTES: 1) Reg. 129.53 allows the bubble concept to be used by surface coating facilities
2) Local regulations for Allegheny County also exist
3) General standards for bulk gasoline terminals, bulk gasoline plants and small gasoline storage tanks are set up in Section 129.62

VIRGINIA

Emission Standards for Gaseous Pollutants (Rule EX-5)

4.52 Hydrocarbon emissions

(a) General
(b) Effluent water separators
(c) Storage of volatile organic compounds
(d) Bulk loading of volatile organic compounds
(e) Gasoline transfer vapor control
(f) Evaporative losses from filling vehicular tanks
(g) Submerged fill-storage vessel
(h) Pumps and compressors
(i) Waste gas disposal
(j) Liquid organic compounds
(k) Architectural coatings
(l) Disposal and evaporation of liquid organic compounds

4.54 Volatile Organic Compound Emissions - General

(a) General
(b) [Reserved]
(c) Solvent metal cleaning
(d) Disposal
(e) Incinerators/Afterburners
(f) Filling of storage tanks
(g) Volatile organic compound storage - fixed roof tanks
(h) Volatile organic compound storage - floating roof tanks

4.55 Volatile Organic Compound Emissions - Coating Industry

(a) General
(b) Plant-wide emission reduction plans
(c) Large appliance coating
(d) Magnet wire coating
(e) Automobile and light duty truck coating
(f) Can coating
(g) Metal coil coating
(h) Paper and fabric coating
(i) Vinyl coating
(j) Metal furniture coating
(k) Miscellaneous metal parts and products coating
(l) Flatwood paneling coating
(m) Graphic arts

4.56 Volatile Organic Compound Emissions - Petroleum Industry

(a) General
(b) Gasoline bulk loading - bulk terminals
(c) Miscellaneous petroleum refinery sources
(d) Transfer of gasoline - gasoline dispensing facilities - Stage I
(e) Gasoline bulk loading - bulk plants
(f) Tank trucks/account trucks and associated vapor collection systems
(g) Petroleum liquid storage - fixed roof tanks
(h) Petroleum liquid storage - floating roof tanks
(i) Petroleum refinery fugitive emissions - leaks

4.57 Volatile Organic Compound Emissions - Miscellaneous Industry

(a) General
(b) Asphalt paving operations
(c) Synthesized pharmaceutical products manufacturing
(d) Pneumatic rubber tire manufacturing
(e) Dry cleaning (perchloroethylene)

STATE: VIRGINIA
ATTAINMENT DATE: 1982, except for the Richmond Metropolitan area which includes Chesterfield and Henrico Counties and the Washington Metropolitan area which includes Fairfax, Loudoun, and Stafford Counties, 1987.

GEOGRAPHIC COVERAGE: Arlington, Chesterfield, Fairfax, Henrico, Loudoun, Prince William, and Stafford Counties and the Cities of Hampton, Newport News, and Norfolk

GENERAL EXEMPTIONS: 1) Sources with VOC emissions up to 7.3 tons/yr, 40 lb/day and 8 lb/hr determined in a manner acceptable to the Board (see Note 1). 2) Sources exclusively for chemical or physical analysis or determination of product quality and commerical acceptance (with provisions) 3) methyl chloroform, and methylene chloride.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	4.55(e)(1)(2)(3)(4)(5)	Prime application - coating 3.2 lb/gal (excluding water) Topcoat application - coating 4.8 lb/gal (excluding watee) Final repair application - coating 4.8 lb/gal (excluding water)	Wheel enamels, anit-rust coatings and sealers not associated with prime or topcoat application to the vehicle body	Approval	See Notes 1, 2
Surface Coating Cans	(4.55(f)(1)(2)(3)(4)	Sheet basecoat and overvarnish; two piece can exterior: 2.8 lb/gal coating (excluding water) Two and three piece can interior body spray; two piece can exterior end: 4.2 lb/gal of coating (excluding water) Three piece can side-seam spray: 5:5 lb/gal of coating (excluding water) End sealing compound coating: 3.7 lb/gal of coating (excluding water)		Approval	See Notes 1, 2

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	4.55 (g)(1)(2)	2.6 lb/gal of coating (excluding water		Approval	See Notes 1, 2
Surface Coating Paper and Fabrics	4.55(h)(1) (2)(3)(4)	2.9 lb/gal of coating (excluding water)	Production of packaging materials (printing of words) and printing operations (rotogravure)	Approval	See Notes, 1, 2
Surface Coating Metal Furniture	4.55(j) (1)(2)	3.0 lb/gal of coating (excluding water)		Approval	See Notes 1, 2
Surface Coating Large Appliances	4.55(c) (1)(2)(3)	Single coat application - 2.8 lb/gal of coating (excluding water) Topcoat application - 2.8 lb/gal of coating (excluding water)	Quick drying lacquers for repairs of scratches and nicks, provided that the volume does not exceed 2 qts./8 hr period.	Approval	See Notes 1, 2
Surface Coating of Insulation of Magnet Wire	4.55(d) (1)(2)	1.7 lb/gal of coating (excluding water)		Approval	See Notes 1, 2
Surface Coating of Vinyl	4.55(i) (1)(2)	3.8 lb/gal of coating (excluding water)		Approval	See Notes 1, 2

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	4.56(g) (1)(2)(3) Appendix M	Equipped with a control method providing 90% efficiency. Should be a pressure tank or be designed or equipped with an internal floating roof or control system of greater efficiency. No holes, tears, opening in seals or seal fabrics - cover all openings Exterior surfaces painted white (with regular repainting)	≤40,000 gallon capacity <400,000 gallon capacity for crude oil or condensate stored prior to lease custody transfer.	Approval	See Note 1
Bulk Gasoline Plants	4.56(e) (1)(2) Appendix M	Vapor control system providing at least 77% efficiency Submerged fill plus a vapor balance system or any control system of greater efficiency. No leaks (vapor tight connections) Pressure relief valves should be set to release at no <0.7 psi or the highest possible pressure	Facilities located in rural VOC emission control areas. <4,000 gal day	Approval	See Note 1
Gasoline Loading Terminals	4.56(b) (1)(2)	No VOC >.67 lb/1000 gal of gasoline loaded Controls - 1) Compression-refrigeration-adsorption system 2) Refrigeration system 3) Oxidation system	Sources with liquids of vp <1.5 psia <7.3. TPY, 40 lb/day, and 8 lb/hr.	Approval	See Note 1

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations State 1	4.56(d) (1)(2)(3)	Vapor control system with at least a 90% efficiency, i.e. submerged fill pipe, vapor tight system (no leaks or losses in pressure) on adsorp-system or condensation system. Pressure relieve valves on storage containers cannot release <0.7 psi or the highest possible pressure	<2000 gallon capacity Transfers in rural VOC emission control areas Total avg. throughput <20,000 gal/mo Storage tanks used mainly for refueling mobile farm equipment, transfer, made to storage tanks with floating roofs or their equivalent.	Approval	See Note 3
Miscellaneous Refinery Sources	4.56(c) (1)(2)(3)	Vacuum producing systems - vapor control system of at least a 95% efficiency: i.e., vent noncondensible vapors to a firebox or incinerator or compress vapors & add to the refinery fuel gas. Hot wells - covered & equipped with a vapor recovery system. Wastewater separators - vapor control system of at least 95% efficiency i.e. soild cover (sealed) a floating roof, or any control system of greater efficiency Process unit turnaround - vapor control system of at least 95% efficiency. i.e., flare, (depressurized to 5 psig or below)	None	Approval	

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	4.54(c)(1)(i)(ii)	Cold cleaning - similar to CTG OTVD - similar to CTG Conveyorized degreasing - similar to CTG	Cold cleaning - solvent volatility $\leq$0.6 psi at 100°F or if solvent is heated $\leq$120°F and degreaser open area <20 ft^2 OTVD - $\leq$10 ft^2 conveyorized degreasing - <20 ft^2	Approval	See Note 1 SIP was revised to exclude the Washington Area from the small source exemption rule.
Cutback Asphalt	4.57(b)(1)(2)(3)	Only emulsified asphalt allowed for paving operations Permitted used when: 1) stockpile storage longer than 1 month is necessary 2) application as a prime coat or tack coat is necessary 3) user demonstrates no VOC emissions under normal use	<60% by volume of VOC Nov-Mar application Manufacture & application of heated asphalt cement as a component in asphaltic concrete mixing or for priming in surface treatment	Approval	
Refinery Leaks	4.56(i)	Leak - VOC conc. >10,000 ppm Every reasonable effort to repair leak within 15 days Monitoring, records, reporting by owner using procedures acceptable to the Board Line containing VOC sealed with second value or equivalent	 Does not apply to safety values	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	4.55(k)(1)(2)(3)(4)	Clear coating - 4.3 lb/gal coating minus water) Forced air dyers - 3.5 lb/gal coating (minus water) Extreme performance - 3.5 l/gal coating (minus water) All other coatings - 3.0 lb/gal coating (minus water)	Vehicle refinishing operations Customized coating of <20 vehicles/day Aircraft, marine vessels	Approval	See Note 1
Surface Coating of Flatwood Paneling	4.55(l)(1)(2)(3)(4)	Printed Panels - ≤6.0 lb/1,000 ft^2 of coated surface Natural Finish Panels ≤12.0 lb/1,000 ft^2 of coated surface Class II Finish - ≤10.0 lb/ 1,000 ft^2 of coated surface	Exterior sliding, tile board or particile board used as a furniture component	Approval	See Note 1
Pharmaceutical Manufacture	4.57(c)	Vapor control system that is >90% efficient for all phases of process Temperature and pressure requirements for surface condensation units Required control system listed Filling of storage tanks: vapor control system - submerged fill pipe - vapor recovery system - vapor balance system no leaks pressure relief valves set to release ≥0.7 psi vapor-tight	<2000 gal. capacity VOC with vp <4.1 psia	Approval	See Note 1

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Continued)	4.57(c)	VOC storage: vapor control system - pressure/vacuum condensation vent set at ±.030 psi - vent condensation system - carbon adsorbtion system - internal floating roof no visible holes, tears all openings covered exterior of tank painted white General: Enclosed exposed liquid surfaces Cover in-process tanks Repair leaks as soon as practical			
Rubber Tire Manufacture	4.57(d)	Undertread, Tread End Cementing or Beading Dipping: 85% efficient vapor control system - carbon adsorption - incineration - if 90% VOC are oxidized Green Tire Spraying: 95% efficient vapor control system - water based sprays - carbon adsorption - incineration if 90% VOC are oxided		Approval	See Note 1

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts	4.55(m)(1)-(7)	Printing process: Flexographic - ≥60% VOC emission controlled Packaging Rotogravure -≥65% VOC emissions controlled Publication Rotogravure -≥65% VOC emissions controlled	Processes using high-solid inks with ≥60% non-volatile material Lithography or letterpress printing <100 TPY VOC emitted	Approval	See Note 1
Petroleum Liquid Storage - Floating Roof Tank	4.56(h)	Control method with >90% efficiency Various seal closure devices required depending on the type of tank. Seal Closure Devices No visible holes, tears Intact and uniform seal Gaps >1/8 in accumulate to <1.0 in^2/ft of tank All openings covered Exterior of tank painted white Routine inspections and maintenance of records required.	≤40,000 gal capacity for crude oil, condensate Tanks storing waxy, heavy pour crude oil	Approval	See Note 1

STATE: VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	4.57(e)	No liquid leakage of solvent Max. concentration of solvent in vent from dryer control device ≤100 ppm (before dilution) Filter wastes: ≤55 lb solvent/200 lb wet waste from diatomaceous earth filters ≤132 lb solvent/220 lb wet waste from solvent still Filtration cartridges drained ≥24 hrs. before discarding Any system reducing waste losses below 2.2 lb solvent/220 lb clothes cleaned will be considered equivalent	Plants with inadequate space for adsorber	Approval	
Gasoline Tank Trucks	4.56(f)(1)-(15)	Designed, maintained and certified to be vapor-tight VOC conc. <100% LEL at 2.5 cm from potential leak source Vapor collection and disposal system pressure requirements Repair within 15 days trucks found to not be vapor-tight		Approval	

STATE: VIRGINIA

Notes:

1. Section 4.54(a)(4); 4.55(a)(4); 4.56(a)(4); 4.56(a)(5), (except for parts (c), (d), (f), and (i); and 4.57(a)(4) except for (b) and (e), provide a general exemption for VOC sources less than 7.3 tons/year, 40 lb/day, of 8 lb/shr. There is no justification for this exemption in EPA's view. This does not meet RACT.

2. Emission standards generally provide that acceptable compliance be achieved by the use of low solvent content coating technology. An owner may implement a p plant-wide emission reduction plan, instead of having each coating line comply with the emission standards.

3. Facilities <20,000 gal/mo. (especially in the Richmond area) are regulated by 4.54(f). Control method $\geq$60% efficiency

WEST VIRGINIA

Chapter 16-20

Regulation XXI - Emissions of VOCs from storage of petroleum liquids in fixed roof tanks

Regulation XXIII - Emissions of VOCs from bulk gasoline terminals

Regulation XXIV - Emissions of VOCs from petroleum refinery sources

STATE: WEST VIRGINIA
ATTAINMENT DATE: See Note 1.
GEOGRAPHIC COVERAGE: Putnam and Kanawha Counties, and Valley Magisterial District of Fayette County.

GENERAL EXEMPTIONS: None

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in Fixed Roof Tanks	XXI Sub-Sec. 4.01 (a)(b) 4.01 (a)(b)	Equip with internal floating roof which has closure seal(s), vapor recovery system, or an equally effective alternative control system.	Storage tanks capacities <416,000 gallons (1.6×10^6 liters) used to store produced crude oil and condensate prior to transfer.	See Note 2	
	Sub-Sec. 4.02(a)(b)	Tanks equipped with floating roofs should have good integrity and have all openings, except stub drains equipped with covers or seals that are closed at all times except when in actual use.			
Miscellaneous Refinery Sources	XXIV Sub-Sec. 4.01(a)	Prohibits emissions of non-condensable VOCs from condensors, hot wells, or accumulators at refineries with vacuum producing systems.		See Note 2	
	4.02(a)	Oil/water separators shall be covered or sealed at all openings during all times except when in use.			
	4.03(a)(b)	Minimize VOC emissions during process unit turnarounds by venting to a control system, flare or firebox, and maintaining process unit internal pressure $\leq$19.7 psia.			

STATE: WEST VIRGINIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	XXIII Sub-Sec. 4.01	Emissions of VOCs during loading not to exceed 80 mg/l of product loaded.	Sources emitting ≥6.8 kilograms in any one day, nor ≥1.4 kg in any one hour.	See Note 2	
	4.02	Vapor control system that does not allow >80 mg/l emissions.			

Note 1: West Virginia is classified as an attainment area for ozone. The State does contain regulations for three VOC sources categories.

Note 2: EPA has not approved these regulations. They are included as additional information for the reader.

REGION IV

Alabama

Florida

Georgia

Kentucky

North Carolina

South Carolina

Tennessee

NOTE: The entire State of Mississippi has been classified as an attainment area for ozone.

ALABAMA

Chapter 6. Control of Organic Emissions

6.1 Applicability
6.2 VOC water separation
6.3 Loading and storage of VOC
6.4 Fixed-roof petroleum liquid storage vessels
6.5 Bulk gasoline plant
6.6 Bulk gasoline terminals
6.7 Gasoline dispensing facility - Stage I
6.8 Petroleum refinery sources
6.9 Pumps and compressors
6.10 Ethylene producing plant
6.11 Surface coating
6.12 Solvent metal cleaning
6.13 Cutback asphalt
6.14 Petition for alternative controls
6.15 Compliance schedules
6.16 Test methods and procedures
6.17 Manufacture of preumatic rubber tires
6.18 Manufacture of synthesized pharmaceutical products
6.19 Perchloroethylene dry cleaning
6.20
6.21 Petroleum refinery equipment
6.22 Graphic arts
6.23 Petroleum liquid storage in floating roof tanks

STATE: ALABAMA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide*

GENERAL EXEMPTIONS: (1) Methane, ethane, 1,1,1-trichloroethane, trichlorotriflouroethane, (2) sources emitting <800 lb per month

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto and Light-Duty Truck Surface Coating	6.11.5	lb voc/gal (excluding water) Primer gal 1.2 Surfacer 2.8 Topcoat 2.8 Repair 4.8		Approval	
Surface Coating Cans	6.11.1	lb VOC/gal (excluding water) Sheet basecoat (ext. & int.) and overvarnish 2.8 Two piece can exterior(basecoat & overvarnish) 2.8 Two and three piece can interior body spray and two piece can exterior (roll and spraycoat) 4.2 Three-piece can side seam spray 5.5 Side seam and end sealing compound 3.7		Approval	

*Rules worded such that once attainment status is reached, rules are no longer applicable unless county has urban area of over 200,000.

STATE: ALABAMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	6.11.2	2.6 lb/gal (minus water)		Approval	
Surface Coating Paper	6.11.6	2.9 lb/gal (minus water)		Approval	
Surface Coating Fabrics	6.11.7	Fabric - 2.9 lb/gal (minus water) Vinyl - 3.8 lb/gal (minus water)		Approval Approval	
Surface Coating Metal Furniture	6.11.3	3.0 lb/gal (minus water)		Approval	
Surface Coating Large Appliances	6.11.4	2.8 lb/gal (minus water)		Approval	
Surface Coating of Insulation Magnet Wire	6.11.8	1.7 lb/gal (minus water)		Approval	
Petroleum Liquid in Fixed Roof Tanks	6.4	Internal floating roof equipped with a closure seal. No visible holes in seal fabric cover. All openings equipped with closure covers.	Tanks <40,000 gal with vapor pressure <1.5 psia Tanks with capacities <420,000 gal prior to lease custody transfer	Approval	

STATE: ALABAMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	6.5	Vapor-balanced tanks and trucks and submerged fill. Bottom fill on trucks. Operation requirement.	Tanks <2,000 gallon capacity Plant <4,000 gal average daily thruput	Approval	
Bulk Gasoline Terminals	6.6	Vapor-balanced system and control system allowing no more than 80 mg/liter mass emission of gasoline loaded.		Approval	
Service Station-Stage I	6.7	Submerged Fill. Vapor balance to truck or control system 90% efficient.		Approval	
Miscellaneous Refinery Sources	6.8	Emission from vacuum-producing systems are combusted. Depressurization process unit must be controlled. Wastewater separaters must be covered or sealed.		Approval	
Solvent Metal Cleaning	6.12	Provisions similar to CTG		Approval	
Cutback Asphalt	6.13	Prohibition of manufacture and use of cut-back asphalt	1. Long life stockpile 2. Use Nov-Feb 3. As penetrating prime coat	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Refinery Leaks	6.21	Yearly monitor pump seals, valves in liquid service and process drains. Quarterly monitor compressor, seals, valves in gas service pressure-related valves in gas service Weekly visible inspection of pump seals Detection equipment for leaks and other repairs.		Approval	
Surface Coating of Miscellaneous Metal Parts	6.11.11	Clear coating - 4.3 lbs VOC/gal (minus water) Air dried - 3.5 lbs VOC/gal (minus water) Extreme performance - 3.5 lbs VOC/gal (minus water) Other - 3.0 lbs VOC/gal (minus water)	Auto/light-duty trucks; metal cans, coils; magnet wire; metal furniture; large appliances; airplane exteriors; auto refinishing; auto/truck custom top coat if production <35/ day; marine vessel, exteriors	Approval	
Surface Coating Flatwood Paneling	6.11.10	Interior panels - 6.0 lbs VOC/1000 sq ft Natural finish hardwood plywood 12 lbs VOC/1000 sq ft Class II finishes on hardboard 10 lbs VOC/1000 sq ft.	Exterior siding, tile board, particle board used as a furniture component	Approval	

123

STATE: ALABAMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	6.18	Surface condensers - outlet gas temperature less than or equal to -13°F VOC vapor pressure >5.8 psi at 68°F +5°F VOC vapor pressure >2.9 psi at 68°F +32°F, VOC vapor pressure >1.5 psi at 68°F +50°F, VOC vapor pressure >1.0 psi at 68°F +77°F, VOC vapor pressure >0.5 psi at 68°F Equivalent controls VOC reduction from air dryers and production equipment exhaust systems by ≥90% if emissions are ≥330 lbs/day or ≤33 lbs/day if emissions are <330 lbs/day Operational requirements for vapor balance system, pressure/vacuum conservation vents, enclosure of centrifuges/filters, closed covers, repair of leaks.		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture	6.17	For undertread cementing, tread end cementing, bead-dipping capture system with control device >90% destruction efficiency or equivalent process changes. Green tire spraying-substitute H_2O - based sprays.	Total VOC for all affected operations <70 grams per tire on a 30-day basis.	Approval	
Graphic Arts	6.22	Volatile fraction of ink, as applied to substrate $\leq$25% by volume organic $\geq$75% H_2O Ink (minus H_2O) contains $\geq$60% by volume non-volatile material Incineration or equivalent add-on controls to get 75% control for publication rotogravure, and 65% control for packaging rotogravure, and 60% control for flexographic		Approval	
Petroleum Liquid Storage in Floating Roof Tanks	6.23	Secondary seals Operation/maintenance requirements	Storage of waxy heavy pour crude oil <423,000 gallons prior to custody transfer Petroleum <1.5 psia Petroleum with vapor pressure <4.0 psia if vessel is of welded construction with specific seals	Approval	

STATE: ALABAMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Dry Cleaning-Perchloroethylene	6.19	Vent dryer exhaust to carbon adsorption Emissions ≤100 ppmv prior to dilution Cook/treat diatomaceous earth filters to contain ≤55 lbs VOC/220 lbs wet waste material Reduce VOCs from solvent stills to ≤132 lbs/220 lbs wet waste material Drain filtration cartridges 24 hrs.		Approval	
Gasoline Tank Trucks	6.3.2	Bottom fill		Approval	
Pumps and Compressors	6.9	Units in Mobil Co. shall have mechanical seals.		Approval	

FLORIDA

17-2.650 Reasonably Available Control Technology (RACT)

(f) Specific emission limitations

1. Can coating
2. Coil coating
3. Paper coating
4. Fabric and vinyl coating
5. Metal furniture coating
6. Surface coating of large appliances
7. Magnet wire coating
8. Petroleum liquid storage
9. Bulk gasoline plants
10. Bulk gasoline terminals
11. Gasoline stations - Stage I
12. Solvent metal cleaning
13. Cutback asphalt
14. Surface coating of miscellaneous metal parts and products
15. Surface coating of flat wood paneling
16. Graphic arts systems
17. Petroleum liquid storage tanks with external floating roofs
18. Perchloroethylene dry cleaning systems
19. Gasoline tank trucks

STATE: FLORIDA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Broward, Dade, Duval, Hillsborough, Orange, Palm Beach, and Pinellas Counties

GENERAL EXEMPTIONS: 1) Methane, Ethane, Methyl Chloroform, Methylene Chloride, Trichlorotrifluoroethane, Dichlorotetrafluoroethane, Chloropentafluoroethane, Trichlorofluomethane, Dichlorodifluoromethane, Chlorodifluoromethane, Trifluoromethane
2) Sources emitting <15 lb/day and <3 lb/hr

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating		No Regulation				
			lb VOC/gal (excluding water)			
Surface Coating Cans	17-2.650 (1)(f)1	Sheet basecoat (ext. & int.) and overvarnish	2.8		Approval	
		Two piece can exterior (basecoat & overvarnish)	2.8			
		Two and three piece can interior body spray and two piece can exterior (roll and spray coat)	4.2			
		Three-piece can side seam spray	5.5			
		Side seam and end sealing compound	3.7			
Surface Coating Paper	17-2.650 (1)(f)2	2.6 lb/gal (excluding water)			Approval	
Surface Coating Metal Coils	17-2.650 (1)(f)3	2.9 lb/gal (excluding water)			Approval	

STATE: FLORIDA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	17-2.650 (1)(f)4	Fabric - 2.9 lb/gal (excluding water) Vinyl - 3.8 lb/gal (excluding water)		Approval	
Surface Coating Metal Furniture	17-2.650 (1)(f)5	3.0 lb/gal (excluding water)		Approval	
Surface Coating Large Appliances	17-2.650 (1)(f)6	2.8 lb/gal (excluding water)	Quick-dry lacquers for repairs provided ≤ 1 qt/8 hrs	Approval	
Surface Coating of Insulation of Magnet Wire	17-2.650 (1)(f)7	1.7 lb/gal (excluding water)		Approval	
Petroleum Liquid in Fixed Roof Tanks	17-2.650 (1)(f)8	Internal floating roof equipped with a closure seal No visible holes ... in seal fabric covers All openings ... equipped with closed covers	Tanks with capacities <42,000 gallon (nominal) Petroleum liquids with a vapor pressure ≤1.5 psia Vessels with external floating roofs Tank with capacities <420,000 gallons prior to lease custody transfer	Approval	
Bulk Gasoline Plants	17-2.650 (1)(f)9	Submerged fill		Approval	

STATE: FLORIDA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	17-2.16 (1)(f)10	Vapor control system with emission limit of ≤80 mg/l of gasoline transferred Operations requirements		Approval	
Service Stations Stage I	17-2.650 (1)(f)11	Vapor balance or vapor control system with emission limit of ≤80 mg/l of gasoline transferred	<20,000 gal/mo throughput	Approval	
Miscellaneous Refinery Sources	17-2.650 (6)(1)	Vacuum producing systems must be controlled Wastewater separators must be covered and/or sealed Depressurization during process unit turnaround must be controlled		Approval	
Solvent Metal Cleaning	17-2.650 (1)(f)12	Provisions similar to CTG		Approval	
Cutback Asphalt	17-2.650 (1)(f)13	Prohibition of manufacture and use of cutback asphalt	1) long life storage 2) use at temps. <50°F is necessary 3) use as a penetrating prime coat, sand seal coat, or tack coat 4) stockpiling of cold mixed asphaltic concrete patching	Approval	

STATE: FLORIDA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks		No regulations		Approval	State has certified that no sources exist
Surface Coating of Miscellaneous Metal Parts	17-2.650 (1)(f)14	- Clear coating - 4.3 lbs VOC/gal (minus water) - Air dried - 3.5 lbs VOC/gal (minus water) - Extreme performance - 3.5 lbs VOC/gal (minus water) - Other - 3.0 lbs VOC/gal (minus water)	Autos/light-duty trucks; metal cans; coils; magnet wire; metal furniture; large appliances; airplane exteriors; auto refinishing; auto/truck custom top coat if production <35/day; marine vessel, exteriors	Approval	
Surface Coating Flatwood Paneling	17-2.650 (1)(f)15	- Interior panels - 6.0 lbs VOC/1000 sq ft - Natural finish hardwood plywood - 12 lbs VOC/1000 sq ft - Class II finishes on hardboard - 10 lbs VOC/1000 sq ft	Exterior siding, tileboard, particle board used as a furniture component	Approval	
Pharmaceutical Manufacture Rubber Tire Manufacture		No regulations		Approval	State has certified that no sources exist

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts	17-2.650 (1)(f)16	- Volatile fraction of ink, as applied to substate contains ≤25% by volume of organic solvent and ≤75% water - Ink (minus water) contains ≥60% by volume non-volatile material - Incineration system oxidizing ≥90% VOC to CO_2 and water	-	Approval	-
Petroleum Liquid Storage in Floating Roof Tanks	17-2.650 (1)(f)17	- Secondary seal operation/maintenance requirements	- <42,000 gal capacity - Storage of waxy, heavy pour crude oil - <420,000 gal capacity prior to lease custody transfer - Petroleum liquids with a vapor pressure ≤1.5 psia - Petroleum liquids with a vapor pressure ≤4.0 psia if vessel is of welded construction with specified seals	Approval	
Drycleaning - Perchloroethylene	17-2.650 (1)(f)18	- Vent dryer exhaust to carbon adsorption - Emissions ≤100 ppmv prior to dilution - Cook/treat diatomaceous earth filters to contain ≤55 lbs VOC/220 lbs wet waste material - Reduce VOCs from solvent skills to ≤ 132 lbs/220 lbs wet waste material - Drain filtration cartridges 24 hrs	- Coin operated facilities - Lack of space for carbon absorber - Lack of steam capacity to desorb	Approval	

132

STATE: FLORIDA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	17-2.650 (1)(f)(3) (1)(f)(9) (1)(f)(19)	- Submerged filling at bulk plants, bulk terminals and if tank truck has a monthly throughput $\geq$20,000 gal - Vapor tight delivery vessels (certification test)		Approval	

GEORGIA

391-3-1.02 Provisions

(2) Emission standards

(t) VOC emissions from automobile and light duty truck manufacturing
(u) VOC emissions from can coating
(v) VOC emissions from coil coating
(w) VOC emissions from paper coating
(x) VOC emissions from fabric and vinyl coating
(y) VOC emissions from metal furniture coating
(aa) VOC emissions from wire coating
(bb) Petroleum liquid storage
(cc) Bulk gasoline terminals
(dd) Cutback asphalt
(ee) Petroleum refinery
(ff) Solvent metal cleaning
(hh) Petroleum refinery equipment leaks
(ii) VOC emissions from surface coating of miscellaneous metal parts and products
(jj) VOC emission from surface coating of flat wood paneling
(kk) VOC emissions from synthesized pharmaceutical manufacturing
(ll) VOC emissions from the manufacture of pneumatic rubber tires
(mm) VOC emissions from graphic arts systems
(nn) VOC emissions from external floating roof tanks

STATE: GEORGIA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Sources with potential to emit <100 TPY, Methyl Chloroform, Freon 113, Methane, Ethane, Trichlorofluoromethane, Dichlorodifluoromethane, Chlorodifluoromethane, Trifluoromethane, Dichlorotetrafluoroethane, and Chloropentafluoroethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	391-3-1.02 (t)	1.2 lb/gal, excluding water, from the electrophoretic applied prime system 2.8 lb/gal, excluding water, delivered to applicator from spray prime application, flashoff area, and area operations. 2.8 lb/gal, excluding water, to applicator from topcoat application, flashoff area, or oven operations. 4.8 lb/gal, excluding water, to applicator from final repair application flashoff area, and oven operations		Approval	
Surface Coatings Cans	391-3-.02 (u)	Emission limit lb/gal excluding water Sheet basecoat (ext. & int) and overvarnish or two piece can ext. (basecoat & overvarnish) operations 2.8 Three piece can side seam spray operations 5.5 End sealing compound operations 3.7 Two & three piece can int. body spray and two-piece can ext. end (spray or roll coat) operations 4.2		Approval	

STATE: GEORGIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	391-3-1-.02 (v)	2.6 lb/gal, excluding water, delivered to the coating applicator from prime and topcoat or single coat operations		Approval	
Surface Coating Paper	391-3-1-.02 (w)	2.9 lb/gal, excluding water, to coating applicator		Approval	
Surface Coating Fabrics	391-3-1-.02 (x)	2.9 lb/gal, excluding water, to coating applicator from fabric coating 3.8 lb/gal (minus water) from vinyl coating		Approval	
Surface Coating Metal Furniture	391-3-1-.02 (y)	3.0 lb/gal, excluding water, to coating applicator		Approval	
Surface Coating Large Appliances	391-3-1-.02 (z)	2.8 lb/gal, excluding water, to coating applicator	Quick drying lacquers used for repair of scratches and nicks	Approval	
Surface Coating of Insulation of Magnet Wire	391-3-1-.02 (aa)	1.7 lb/gal, excluding water, delivered to the coating applicator		Approval	
Petroleum Liquids in Fixed Roof Tanks	391-3-1-.02 (bb)	True vapor pressure greater than 1.52 psia, storage vessel must have floating roof or equally effective alternative controls	- ≤40,000 gals - true vapor pressure <1.52 psia - Underground vessels if total liquids moved < twice tank volume - <425,000 gals for crude oil storage prior to lease custody transfer	Approval	

STATE: GEORGIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants		No regulation		Approval	State has certified that no sources >100 TPY exist in this category
Gasoline Loading Terminals	391-3-1-.02	Vapor control system capable of limiting VOC emissions to 4.7 gr/gal of gasoline loaded	<3000 gals capacity	Approval	
Service Stations Stage I		No regulation		Approval	State has certified that no sources >100 TPY exist in this category
Miscellaneous Refinery Sources	391-3-1-.02 (ee)	Vacuum producing system - noncondensible emission from condensers or accumulators piped to firebox or incinerator or compressed to fuel gas Oil/water separators must have approved seals and covers and seals must be closed except when in use Minimization of VOC emissions during unit turnaround		Approval	
Solvent Metal Cleaning	391-3-1-.02 (ff)	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG		Approval	

STATE: GEORGIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	391-3-1-.02 (dd)	Use prohibited after 1/1/81	1) long-life stockpile storage 2) use for ambient temp. <50°F 3) solely as a penetrating prime 4) base stabilization	Approval	
Refinery Leaks	391-3-1-.02 (hh)	- Monitoring plan by 7/1/81 - Yearly monitoring (detection equipment) pump seals, pipeline valves (liquid), process drains - Quarterly (detection equipment) compressor seals, pipeline valves (gaseous), pressure relief valves (gaseous) - Weekly visible inspection of pump seals - Detection equipment for leaks and after repairs - Monitoring within 24 hrs of relief valve venting		Approval	
Surface Coating Miscellaneous Metal Parts	391-3-1-.02 (ii)	- Clear coating - 4.3 lbs VOC/gal (minus water) - Air dried - 3.5 lbs VOC/gal (minus water) - Extreme performance - 3.5 lbs VOC/gal (minus water) - Other - 3.0 lbs VOC/gal (minus water)		Approval	

STATE: GEORGIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Paneling	391-3-1-.02 (jj)	- Printed interior panels - 6 lbs/1000 sq ft - Natural finish hardwood plywood - 12 lbs/1000 sq ft - Class II finishes on hardboard - 10 lbs/1000 sq ft		Approval	
Pharmaceutical Manufacture	391-3-1-.02 (kk)	- Surface condensers - outlet gas temperture ≤ -13°F, VOC vapor pressure >5.8 psi at 68°F +5°F, VOC vapor pressure >2.9 psi at 68°F +32°F, VOC vapor pressure >1.5 psi at 68°F +50°F, VOC vapor pressure >1.0 psi at 68°F +77°F, VOC vapor pressure >0.5 psi at 68°F - Equivalent controls - VOC reduction from air dryers and production equipment exhaust systems by ≥ 90% if emissions are ≥330 lbs/day or <33 lbs/day if emissions are <330 lbs/day - Operational requirements for vapor balance system, pressure/vacuum conservation vents, enclosure of centrifuges/filters, closed covers, repair of leaks		Approval	Applies to VOCs from reactors, distillation operations, crystallizers, centrifuges, vacuum dryers that emit ≥15 lbs/day
Rubber Tire Manufacture	391-3-1-.02 (ll)	- Undertread cementing, tread end cementing, bead dipping - capture system and control device with ≥90% destruction efficiency or equivalent process changes - Green tire spraying - substitute water-based sprays or operate control device with ≥90% reduction efficiency	Total VOCs from all undertreading, tread and, bead dipping, green tire spraying <59 gr/tire	Approval	

STATE: GEORGIA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts	391-3-1-.02 (mm)	Volatile fraction of ink, as applied to substrate, contains <25% by volume organic solvent and >75% water or contains >60% non-volative material or operator has control system with 90% reduction efficiency		Approval	
Petroleum Liquids in Floating Roof Tanks	391-3-1-.02 (nn)	Secondary seals	- Storage of waxy heavy pour crude oil; capacities <420,000 gal for storage of produced crude and condensate prior to lease custody transfer; the vapor pressure <1.5 psia or <4.0 psia with welded construction	Approval	
Drycleaning - Perchloroethylene		No regulations			State has certified that no sources >100 TPY exist in these categories.
Gasoline Tank Truck					

KENTUCKY

Chapter 61. Existing Standards

401 KAR 61:031	Existing tank trucks
401 KAR 61:040	Existing ethylene producing plants
401 KAR 61:045	Existing oil-effluent waste separators
401 KAR 61:050	Existing storage vessels for petroleum liquids
401 KAR 61:055	Gasoline loading terminals
401 KAR 61:056	Existing bulk gasoline plants
401 KAR 61:060	Existing sources using organic solvents
401 KAR 61:085	Existing service stations
401 KAR 61:090	Existing automobile and light-duty truck surface coating operations
401 KAR 61:095	Existing solvent metal cleaning equipment
401 KAR 61:100	Existing insulation of magnet wire operations
401 KAR 61:105	Existing metal furniture surface coating operations
401 KAR 61:110	Existing large appliance surface coating operations
401 KAR 61:120	Existing fabric, vinyl and paper surface coating operations
401 KAR 61:122	Existing graphic arts facilities using rotogravure and flexography
401 KAR 61:124	Existing factory surface coating operations of flat wood paneling
401 KAR 61:125	Existing can surface coating operations
401 KAR 61:130	Existing coil surface coating operations
401 KAR 61:132	Existing miscellaneous metal parts and products surface coating operations
401 KAR 61:135	Selected existing petroleum refining processes and equipment
401 KAR 61:137	Leaks from existing petroleum refinery equipment
401 KAR 61:150	Existing pharmaceutical manufacture
401 KAR 61:155	Existing pneumatic rubber tire plants
401 KAR 61:160	Existing perchloroethylene dry cleaning systems
401 KAR 63:025	Cutback asphalt

STATE: KENTUCKY

ATTAINMENT DATE: 1982, except for the Cincinnati Metropolitan area which includes Boone, Campbell, and Kenton Counties and the Louisville Metropolitan area which includes Jefferson County, 1987.

GEOGRAPHIC COVERAGE: Statewide except as noted below

GENERAL EXEMPTIONS: Methane, Ethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	401 KAR 61:090	Affected facility must not discharge more than 15% by weight of VOC compounds net input into the facility.	1) If prime coating line; uses electrophoretic deposition and coating 1.2 lb/gal (excluding water) coating or 50% transfer efficiency & 55% solids coating on first applicators; and uses <2.8 lb/gal (excluding water) coating or 65% transfer efficiency and 55% solids coating on surfacer. 2) If topcoating line: uses <2.8 lb/gal (excluding water) coating or 55% solids coating and 65% transfer efficiency. 3) If repair coating line: uses 4.8 lb/gal (excluding water) coating and 65% transfer efficiency. 4) If arithmetic average of all coatings on a coating line meets the exemption then all coatings are considered to meet the exemption.	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Cans	401 KAR 61:125	Affected facility must not discharge more than 15% by weight of VOC compounds net input into the facility.	The State set up its exemption section such that any affected facility which complies with the RACT emission limits is exempt.	Approval	
Surface Coating Metal Coils	401 KAR 61:130	Affected facility must not discharge more than 15% by weight of VOC net input into facility.	If coating is less than 2.6 lb/gal VOC less water	Approval	
Surface Coating Paper	401 KAR 61:120	Affected facility must not discharge more than 15% by weight of VOC net input into facility.	If coating is less than 2.9 lb/gal VOC less water	Approval	
Surface Coating Fabrics	401 KAR 61:120	Affected facility must not discharge more than 15% by weight of VOC net input into facility	If coating is less than 2.9 lb/gal VOC less water for fabric If coating is less than 3.8 lb/gal VOC less water for vinyl	Approval	
Surface Coating Metal Furniture	401 KAR 61:105	Affected facility must not discharge more than 15% by weight of VOC net input into facility	If coating is less than 3.0 lb/gal VOC less water delivered to the applicators associated with the prime, single, or topcoat coating line	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Large Appliances	401 KAR 61:110	Affected facility must not discharge more than 15% by weight of VOC net input into facility	If coating less than 2.8 lb/gal VOC less water delivered to prime, single, or topcoat coating line Coating operations to repair nicks and scratches that occur during assembly	Approval	
Surface Coating of Insulation of Magnet Wire	401 KAR 61:100	Affected facility must not discharge more than 15% by weight of VOC net input into facility	If coating is less than 1.7 lb/gal VOC less water	Approval	
Petroleum Liquids in Fixed Roof Tanks	401 KAR 61:050	Affected facility is any fixed roof tank >580 gallon capacity If >40,000 gallons, and vapor pressure is between 1.5 and 11.1 psia - floating roof or vapor recovery If >40,000 gals and v.p. >11.1 psia - - vapor recovery	- Storage vessels on farm used only to store petroleum liquids used by farm - Pressure vessels @ >15 psig w/o emissions - Subsurface caverns or porous rock reservoirs	Approval	
Petroleum Liquids in Fixed Roof Tanks (Cont'd)	401 KAR 61:050	If >580 gallons and v.p. $\geq$1.5 psia - submerged fill pipe All have same operating requirements as RACT	- Underground tanks if annual throughput less than twice capacity - Garrard, Graves, Hopkins, Laurel, Montgomery, Nelson, Pulaski, Scott, Taylor, Trigg and Union Counties		
Bulk Gasoline Plants	401 KAR 61:056	Tank controls per 401 KAR 61:050 and 59:050 Vapor balance for storage tank and truck tank filling Submerged or bottom filling of trucks Various additional equipment and operating requirements as in CTG	Maximum daily throughout less than 200 gal	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	401 KAR 61:055	For >20,000 gal/day throughput - Vapor control system w/emissions less than 80 mg/l - No leaks in piping or vessels greater than 100% of LEL as propane on explosimeter with probe 2.5 cm from source. Vapor control system Prevents gauge pressure from exceeding 18" H_2O and vacuum from exceeding 6" H_2O Pressure tap or equivalent on vapor collection system	None	Approval	
Service Stations Stage I	401 KAR 61:085	- Submerged fill - Gauge well drop tube - Vent line restriction - Vapor balance system	Farms	Approval	Applicable to urban nonattainment counties only
Miscellaneous Refinery Sources	401 KAR 61:045	Oil-effluent water separators - Covers or floating roof or vapor recovery and gas tight Vacuum systems- Vent condensers, hot wells, vacuum pumps, and accumulators to firebox or flare Process unit turnaround - Vent purged VOC from process unit or vessel to firebox on flare until pressure in unit is less than 5 psig	If used exclusively in conjunction with crude oil production If recovers <200 gal/day VOC Reid v.p. <0.5 psia	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	401 KAR 61:095	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG	OTVD <10 ft^2 Conveyorized degreasers <20 ft^2	Approval	
Cutback Asphalt	401 KAR 63:025	After 4/1/80 - do not use, sell for use, manufacture, mix or store cutback or unacceptable emulsion asphalt mixtures for asphalt paving operations	1) penetrating prime coat use 2) dust suppression use 3) maintenance Nov. to March	Approval	Unacceptable emulsion asphalt yields 7% by volume of oil distillate when tested per 401 KAR 50:015
Refinery Leaks	401 KAR 61:137	Repair leaks within 15 days and recheck Perform further maintenance until emissions are below screening value (10,000 ppm) Second valve, blind flange, plug or cap on VOC pipe or line with valve at end Monitoring requirements	Garrard, Graves, Hopkins, Laurel, Montgomery, Nelson, Pulaski, Scott, Taylor, Trigg, Union Countries	Approval	
Surface Coating Miscellaneous Metal Parts	401 KAR 61:132	Emissions limited to 15% by weight of VOC net input	Same counties as 401 KAR 61:137 and facilities subject to EPA-approved local regulations Clear coat - <4.3 lb/gal Air-dried - <3.5 lb/gal Extreme performance - <3.5 lb/gal	Approval	

146

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Miscellaneous Metal Parts (Cont'd)			Color coat/first coat on untreated ferrous substrate - <3.0 lb/gal Infrequent color change - <0.4 lb/gal Airplane/marine vessel exteriors, auto refinishing, custom coating autos (<35/day) Total VOC emissions <30 TPY		
Surface Coating Flatwood Paneling	401 KAR 61:124	Emissions limited to 15% by weight of VOC net input	Same counties as 401 KAR 61:137 Printed interiors (hardwood plywood and thin particleboard) - <6 lb/1000 sq. ft Natural finish hardwood plywood - <12 lb/1000 sq. ft Class II finishes - <10 lb/1000 sq. ft	Approval	
Pharmaceutical Manufacture	401 KAR 61:150	1) Surface condensers or equivalent for reactors, distillation, crystallizers, centrifuges, vacuum dryers ≥15 lb day VOC emissions 2) Condenser outlet gas temperature when condensing VOCs at vapor pressure at 20°C -25°C, 5.8 psi -15°C, 2.9 psi 0°C, 1.5 psi +10°C, 1.0 psi +25°C, 0.5 psi	Same counties as 401 KAR 61:137	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (cont'd)	491 KAR 61.150	3) Air dryers/production equipment exhaust systems with emissions <330 lbs/day, 90% reductions 4) Storage tanks with vapor pressure >4.1 psi at 20°C - 1 liter displaced vapor/10 liters transferred on truck/rail delivery to tanks >2000 gal except where tanks have floating roofs or vapor recovery system 5) Enclosed centrifuges, rotary vacuum filters 6) Pressure/vacuum conservation vents 7) Closed covers on in-process tanks 8) Repair leaks within 15 days	In-plant transfers		
Rubber Tire Manufacture	401 KAR 61:155	Undertread, tread end, bead dip - 76% or more reduction Green tire spray - 81% or more reduction	Same counties as 401 KAR 61:137 Facilities using water-based sprays	Approval	
Graphic Arts	401 KAR 61:122	Publication rotogravure - emissions limited to 25% by weight of VOC net input Flexographic - limited to 40% by weight of VOC net input Packaging or specialty rotogravure - limited to 35% by weight of VOC net input	Same counties as 401 KAR 61:137 Use of water-borne ink with volatile portion 75% water and 25% solvent 70% overall reduction in solvent usage Use of inks with >60% non-volatile material	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid in Floating Roof Tanks	401 KAR 61:050	Secondary seal from floating roof to tank wall Operating requirements (e.g. no visible holes, tears in seals; closed covers/lids/seals; closed automatic bleeder vents) Monitoring requirements	Capacity <40,000 gal Capcity <422,000 gal used to store crude oil prior to custody transfer Metallic-type shoe seal in welded tank which has secondary seal from top of shoe seal to tank wall Storage of waxy, heavy pour crude	Approval	
Drycleaning - Perchloroethylene	401 KAR 61:160	No liquid leaks of solvent Dryer exhaust vented through carbon adsorption Solvent concentration ≤100 ppm before dilution Residue from diatomaceous filter ≤25 kg solvent/100 kg wet waste material Filtration cartridges drained 24 hrs prior to discard	Same counties as 401 KAR 61:137 Coin-operated facilities	Approval	
Gasoline Tank Trucks	401 KAR 63:031	Valid KY pressure-vacuum test sticker Pressure change ≤3 in water in 5 min when pressurized to 18 in. water and evacuated to 6 in. water using prescribed test method No leaks >100% of LEL as propane on combustible gas detector 2.5 cm from source No visible leaks	Facilities subject to EPA-approved local regulations	Approval	

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Organic Solvents	401 KAR 61:060	85% reduction Reduction by incineration (90% oxidized), adsorption, process modifications Uncontrolled emissions - 40 lbs/day, 8 lbs/hr	Manufacture, transport, loading, storage of organic solvents or materials containing organic solvents Use of herbicides, pesticides, insecticides Use of saturated halogenated HCs or perchloroethylene VOC consists of non-chemically reactive solvent $\leq$30% by volume Volatile content is only H_2O and non-photo reactive solvent and solvent $\leq$20% by volume Emergency releases	Approval	
Ethylene Producing Plants	401 KAR 61:040	Waste gas stream - 1300°F for $\geq$0.3 secs in a direct-flame afterburner or equally effective catalytic vapor incinerator Pyrometer at operator's eye level for afterburner or incinerator			Applies to Priority I Regions

251

STATE: KENTUCKY

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Construction in or Impacting on Non-Attainment Areas	401 KAR 51:050	51:050 establishes requirements for creating and using emission reduction credits at existing sources subject to RACT and for using alternative emission standards (bubbles)			

NORTH CAROLINA

Section .0900 Volatile Organic Compounds

.0901	Definition
.0902	Applicability
.0903	Recordkeeping, reporting, monitoring
.0904	Malfunctions, breakdowns, upsets [repealed]
.0905	Petition for alternative controls
.0906	Circumvention
.0907	Equipment installation compliance schedules
.0908	Equipment modification compliance schedules
.0909	Low solvent content coating compliance schedules
.0910	Alternate compliance schedules
.0911	Exceptions for compliance schedules
.0912	General provisions for test methods and procedures
.0913	Determination of volatile content of surface coatings
.0914	Determination of VOC emission control system efficiency
.0915	Determination of solvent metal cleaning VOC emissions
.0916	Determination of VOC emissions from bulk gasoline terminals
.0917	Automobile and light duty truck manufacturing
.0918	Can coating
.0919	Coil coating
.0920	Paper coating
.0921	Fabric and vinyl coating
.0922	Metal furniture coating
.0923	Surface coating of large appliances
.0924	Magnet wire coating
.0925	Petroleum liquid storage
.0926	Bulk gasoline plants
.0927	Bulk gasoline terminals
.0928	Gasoline service stations-Stage I
.0929	Petroleum refinery sources
.0930	Solvent metal cleaning
.0931	Cutback asphalt
.0932	Gasoline truck tanks and vapor collection systems
.0933	Petroleum liquid storage in external floating roof tanks
.0934	Coating of miscellaneous metal parts and products
.0935	Factory surface coating of flat wood paneling
.0936	Graphic arts
.0937	Manufacture of pneumatic rubber tires
.0938	Perchloroethylene dry cleaning system
.0939	Determination of volatile organic compound emissions
.0940	Determination of leak tightness and vapor leaks
.0941	Alternative method for least tightness
.0942	Determination of solvent in filter waste

STATE: NORTH CAROLINA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Mecklenburg County

GENERAL EXEMPTIONS: Freon 113, Methyl Chloroform, Methylene Chloride, Methane, Ethane, Trichlorofluoroethane, Dichlorodifluoromethane, Chlorodifluoromethane, Trifluoromethane, Dichlorotetrafluoroethane, and Chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	.0917(c)	Prime application, flashoff area and oven operations - 1.2 lb/gal (excluding water) Final repair application, flashoff area and oven operations - 2.8 lb/gal daily average (excluding water) Final repair application, flashoff area and oven operations - 4.8 lb/gal (excluding water)		Approval	
Surface Coating Cans	.0918(c)	Sheet basecoat - 2.8 lb/gal (excluding water) Top and three piece interior body spray; Two piece can exterior end - 4.2 lb/gal (excluding water) Three piece can side seam spray - 5.5 lb/gal (excluding water) End sealing compound - 3.7 lb/gal (excluding water)		Approval	
Surface Coating Metal Coils	.0919(c)	Prime and topcoat, or single coat - 2.6 lb/gal (excluding water)		Approval	

351

STATE: NORTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Paper	.0920(d)	2.9 lb/gal (excluding water)		Approval	
Surface Coating Fabrics	.0921(d)	Fabric coating line - 2.9 lb/gal (excluding water) Vinyl coating line - 3.8 lb/gal (excluding water)		Approval	
Surface Coating Metal Furniture	.0922(c)	Prime and topcoat of single coat- 3.0 lb gal (excluding water)		Approval	
Surface Coating Large Appliances	.0923(d)	Prime, single or topcoat - 2.8 lb/gal (excluding water)		Approval	
Surface Coating of Insulation of Magnet Wire	.0924(c)	1.7 lb/gal (excluding water)		Approval	
Petroleum Liquids in Fixed Roof Tanks	.0925(d)	Internal floating roof, or equivalent Openings must be equipped with covers.	Tanks with capacities <39,000 gal. Vessels with external floating roofs Tanks with capacities <416,000 gal used to store produced crude and condensate prior to lease custody transfer	Approval	

A51

STATE: NORTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	.0926	Vapor balance and either submerged fill or bottom fill on storage tanks and tank trucks or trailers.	Stationary storage tanks <528 gallons Gasoline bulk plants with <4000 gal/day throughput	Approval	
Gasoline Loading Terminals	.0927(c)	Vapor control system that does not emit >4.7 grains/gal.		Approval	
Service Stations Stage I	.0928(d)	Tanks must be equipped with a submerged fill pipe Vapors displaced during filling must be controlled by a vapor control system that is at least 90% efficient.	Stationary tanks with capacities <2000 gallons which are in place before 7/1/79 Stationary tanks with capacities <550 gallons which are installed after 6/30/79 Tanks with combined throughput 50,000 gallons per year	Approval	
Miscellaneous Refinery Sources	.0929(c)	No emissions allowed from condensers, hot walls, or accumulators of the system		Approval	
	.0929(d)	Vacuum producing systems - incineration or piping to refinery fuel gas			
	.0929(e)	Wasterwater separator - covers and seals required			
	.0929(f)	Process unit turnaround - venting to a recovery system, flare, or firebox			

SSI

STATE: NORTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	.0930(d) .0930(e) .0930(f)	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG	OTVD <1m^2 Conveyorized degreasers <2m^2	Approval	
Cutback Asphalt	.0931	Cutback asphalt should not be used except where: 1) long life stockpile storage is necessary 2) the use at ambient temperatures <50°F is necessary, or 3) cutback asphalt is used soley as a penetrating prime coat		Approval	
Refinery Leaks		No regulations		Approval	State has certified that no sources exist.
Surface Coating Miscellaneous Metal Parts	.0934	Clear coating - 4.3 lbs/gal Air dried - 3.5 lbs/gal Extreme performance - 3.0 lbs/gal Frequent color changes/ untreated ferrous substrate 3.0 lbs gal Infrequent color changes 0.4 lbs/gal powder coats, 3.0 lbs/gal other coats	Sources regulated by .0917, .0918, .0919, .0922, .0923, .0929, architectural coating, airplane exterior, auto refinishing, customized auto coating, marine vessel exteriors	Approval	

STATE: NORTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Paneling	.0935	Printed exterior - 6 lbs/1000 sq. ft Natural finish hardwood - 12 lbs/1000 sq. ft Class II finishes, hardboard - 10 lbs/1000 sq. ft		Approval	
Pharmaceutical Manufacture		No regulations			
Rubber Tire Manufacture	.0937	Undertread cementing - 25 grams/tire Trend end - 4.0 grams/tire Bead dipping - 1.9 grams/tire Green tire spray - 24 grams/tire	Combined emissions <50 grams/tire	Approval	
Graphic Arts	.0936	Captured VOCs reduced by 90% (incineration) or 95% (Carbon adsorption) AND 1) Packaging rotogravure - 65% reduction 2) Publication rorogravure - 75% reduction 3) Flexographic printing - 60% reduction Solvent portion of ink, applied to substrate $\geq$75% water $\leq$25% organic solvent Ink contains $\geq$60% nonvolatile material Ink system uses combined solvent/waterborne ink so $\geq$70% volume reduction in solvent usage			
Petroleum Liquids in Floating Roof Tanks		No regulation			State has certified that no sources exist.

STATE: NORTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Perchloroethylene	.0938	No leakage of liquid Gaseous leakage ≤100ppm Vent dryer exhaust to carbon absorber or equivalent Limit organic solvent concentration in exhaust to 100 ppmv prior to dilution Cook/treat diatomaceous earth filter residue so that wastes shall not contain >25 lbs solvent/100 lbs wet waste material Residue from still ≤60lbs solvent/100 lbs wet waste material Drain filtration cartridges 24 hrs before discarding and dry drained cartridges	Coin-operated	Approval	
Gasoline Tank Trucks	.0932	Gasoline Tank Trucks 1) Annual testing 2) Sustain pressure change ≤3.0 in water in 5 min when pressurized to gauge pressure of 18 in of water or evacuated to a gauge pressure of 6 in of water 3) No visible liquid leaks Repair leaks and certify leak tightness within 15 days Vapor Collection System 1) Prevent gauge pressure >8 in of water, prevent vacuum pressure >6in of water 2) No vapor leakage during loading/unloading 3) No avoidable visible leaks 4) Monitor system; repair leaks and test within 15 days		Approval	

SOUTH CAROLINA

Standard No. 5 Volatile Organic Compounds

Section II Provisions for Specific Sources

A. Surface coating of cans
B. Surface coating of coils
C. Surface coating of paper, vinyl, and fabric
D. Surface coating of metal furniture and large appliances
E. Surface coating of magnet wire
F. Surface coating of miscellaneous metal parts and products
G. Surface coating of flat wood paneling
H. Graphic arts - rotogravure and flexography
I-M. [Reserved]
N. Solvent metal cleaning
O. Petroleum liquid storage in fixed roof tanks
P. Petroleum liquid storage in external floating roof tanks
Q. Manufacture of sythensized pharmaceutical products
R. Manufacture of pneumatic rubber tires
S. Cutback asphalt
T. Bulk gasoline terminals and vapor collection systems

STATE: SOUTH CAROLINA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: 1,1,1-Trichloroethane, Acetonitrile, and Freon 113, Methane, Ethane. (See Note 1)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating		No regulation		Approval	State has certified that no sources exist in this category
Surface Coating Cans	5.II.A	lb/gallon (excluding water) Sheet basecoat and over-varnish, or two piece can exterior: 2.8 Two and three piece can interior body spray, and two piece can exterior end: 4.2 Three piece can side-seam spray operations: 5.5 End sealing compound operations: 3.7		Approval	
Surface coating Metal Coils	5.II.B #2.b.	Prime and topcoat, or single 2.6 lb/gal (excluding water)		Approval	
Surface Coating Paper	5.II.C	Paper coating line - 2.9 lb/gal (excluding water)		Approval	

091

STATE: SOUTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	5.II.C	Fabric coating line - 2.9 lb/gal (excluding water) Vinyl coating line - 3.8 lb/gal (excluding water)		Approval	
Surface Coating Metal Furniture	5.II.D	Prime, single, or topcoat - 3.0 lb/gal (excluding water)		Approval	
Surface Coating Large Appliances	5.II.D	Prime, single, or topcoat - 2.8 lb/gal (excluding water)	Quick drying lacquers for repair of scratches and nicks, provided volume does not exceed 1 quart in any 8-hour period.	Approval	
Surface Coating of Insulation of Magnet Wire	5.II.E	1.7 lb/gal (excluding water)		Approval	
Petroleum Liquids in Fixed Roof Tanks	5.II.O	1. Internal floating roof 2. All openings shall be covered 3. Routine inspections once per month 4. Records of monthly storage temperatures and true vapor pressures of liquids stored	Tanks with capacities <420,000 gallons used to store crude oil and condensate prior to the lease custody transfer Tanks <40,000 gals	Approval	
Bulk Gasoline Plants	5.II.T	Submerged fill pipe vapor balance systems for tanks Trucks or trailers must be equipped with a vapor balance system, and must be equipped for submerged or bottom filling.	Tanks <528 gallons	Approval	

STATE: SOUTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	5.II.T	Vapor control system consisting of an adsorber or condenser which does not permit VOC emissions to exceed 4.7 grains/gal, or a vapor collection system which directs all vapors to a fuel gas system		Approval	
Service Stations Stage I		No regulation		Approval	State has certified that no 100 TPY sources exist.
Miscellaneous Refinery Sources		No regulation		Approval	State has certified that no 100 TPY sources exist in this category.
Solvent Metal Cleaning	5.II.N	Control system A of CTG for cold cleaners, OTVD, and conveyorized degreasers if in non-urban counties and use >100 TPY on a facility wide basis, or is in an urban county and use <100 TPY on a facility wide basis. Control system B of CTG for cold cleaners, OTVD, and conveyorized degreasers if in an urban county and use >100 TPY on a facility wide basis.	OTVD $<1m^2$ Conveyorized degreasers $<2m^2$	Approval	

1/82

STATE: SOUTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	5.II.S	Prohibited use	- potential emissions of VOC's ≤550 lb/day and ≤150 lb/hr - penetrating prime coat - long-life stockpile storage - Dec-Feb application	Approval	
Refinery Leaks		No regulations		Approval	State has certified that no 100 TPY sources exist in this category
Surface Coating Miscellaneous Metal Parts	5.II.F	Clear coat - 4.3 lb/gal (minus water) Air dried - 3.5 lb/gal (minus water) Extreme performance - 3.5 lb/gal (minus water Other - 3.0 lb/gal (minus water)	Emissions ≤550 lbs/day (100 TPY) or ≤150 lbs/hr Auto/light duty trucks, cans, coils, wire, furniture, appliances, auto refinishing customized auto coating (<35 per day), exterior of marine vessels	Approval	
Surface Coating Flatwood Paneling	5.II.G	Printed interior panels - 6 lb/1000 sq ft Natural finish hardwood plywood - 12 lb/1000 sq ft. Class II finishes on hardboard - 10 lb/1000 sq ft	<100 TPY Exterior, siding, Tileboard or particleboard used as a furniture component	Approval	

6/3

STATE: SOUTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutial Manufacture	5.II.Q	Control VOCs from reactors, distillation, crystallizers, centrifuges, vacuum driers with potential emissions ≥15 lb/day Surface condensers or equivalent; condenser outlet gas temperatures vary from -25°C to +25°C depending upon VOC vapor pressure (5.8 psi - 0.5 psi) at 20°C	<100 TPY	Approval	
Rubber Tire Manufacture	5.II.R	Undertread comenting, tread end cementing, bead dipping--capture 85% by weight of VOC; 95% removal of VOC from gases ducted to control device (carbon adsorption); 90% oxidization of nonmethane VOCs (incineration); alternative with 90% reduction efficiency Green tire spraying--same as above	<100 TPY	Approval	
Graphic Arts	5.II.H	Heavy coverage-volatile fraction of ink, as applied to substrate has ≤25% by volume of organic solvent and ≥75% water Light coverage - 70% reduction of solvent usage Use of high solid inks (≥60% nonvolatile materials)	<100 TPY	Approval	
Petroleum Liquid Storage in Floating Roof Tanks	5.II.P	Secondary seal and requirements for all seal closure devices. Other operation requirements.	<100 TPY; True vapor pressure <4.0 psia with welded construction; welded construction with metallic-type shoe primary seal and has a secondary seal	Approval	

STATE: SOUTH CAROLINA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	-	No regulations	-	-	State has certified that no 100 TPY sources exist in this category.
Gasoline Tank Truck	-	No regulations	-	-	

1. The General Provisions provide that sources which have the potential to emit 55 lb in 1 day, and <5.5 lb in 1 hour are exempt from regulation if they are located in urban counties. Sources located in rural counties are exempt, provided that they have the potential to emit 550 lb in 1 day, and <150 lb in any 1 hour.

2. Standard No. 6 allows the bubble concept to be used for VOC.

591

TENNESSEE

Chapter 1200-3-18 Volatile Organic Compounds

.01 Purpose
.02 Definitions
.03 Standards for new sources
.04 Alternate emission standard
.05 Automobile and light duty truck manufacturing
.06 Paper coating
.07 Petroleum liquid storage in fixed roof tanks
.08 Bulk gasoline plants
.09 Bulk gasoline terminals
.10 Gasoline service stations - Stage I
.11 Petroleum refinery sources
.12 Can coating
.13 Coil coating
.14 Fabric and vinyl coating
.15 Metal furniture coating
.16 Surface coating of large appliances
.17 Magnet wire coating
.18 Solvent metal cleaning
.19 Cutback asphalt
.20 Flat wood paneling coating
.21 Surface coating of miscellaneous metal parts and products
.22 Leaks from gasoline tank trucks and vapor collection systems
.23 Petroleum refinery equipment leaks
.24 [Reserved]
.25 Petroleum liquid storage in external floating roof tanks
.26 Manufacture of pneumatic rubber tires
.27 Manufacture of synthesized pharmaceutical products
.28 Perchloroethylene dry cleaning
.29 Graphic arts - rotogravure and flexography
.30 Surface coating of aerospace components
.31-.39 [Reserved]
.40 Regulations required only in metropolitan Davidson County
.41 Compliance schedules
.42 Individual compliance schedules
.43 General provisions for test methods and procedures
.44 Determination of volatile content of surface coatings
.45 Test method for determination of volatile organic compound emission control system efficiency
.46 Test method for determination of solvent metal cleaning organic compound emissions
.47 Test procedure for determination of VOC emissions from bulk gasoline terminals

STATE: TENNESSEE
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, dichlorotetrafluoroethane, and chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	1200-3-18-.05	Prime application, flash off area and oven operations - 1.2 lb/gal (excluding water). Surfacer application, flash off area and oven operatons - 2.8 lb/gal (excluding water). Topcoat application, flash off area and oven operations - 2.8 lb/gal (excluding water). Final repair applications, flash off area and oven operations 4.8 lb/gal (excluding water).	Sources <100 TPY in rural counties or <25 TPY in urban counties.	Approval	
Surface Coating Cans	1200-3-18-.12	Sheet basecoat and overvarnish or two-piece can exterior - 2.8 lb/gal (excluding water). Two- and three-piece can interior body spray and two-piece can exterior end operations - 4.2 lb/gal (excluding water). Three-piece can side-seam spray operations - 5.5 lb/gal (excluding water). End sealing compound operations - 3.7 lb/gal (excluding water).	Sources <100 TPY in rural counties or <25 TPY in urban counties.	Approval	

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	1200-3-18-.13	Prime and topcoat or single coating operations - 2.6 lb/gal (excluding water).	Sources <100 TPY in rural counties or <25 TPY in urban counties.	Approval	
Petroleum Liquids in Fixed Roof Tanks	1200-3-18-.07	Internal floating roof equipped with a closure seal, or approved alternative control. No visible holes, tears, or other openings in seal. All openings except stub drains are equipped with covers, lids, or seals. Routine inspections are conducted once per month.	Tanks with capacities ≤42,000 gallons. VOC with vapor pressures ≤1.52 psia. Vessels equipped with floating roofs before 1/1/79. Tanks with capacities ≤420,000 gallons used to store crude oil prior to lease custody transfer.	Approval	
Bulk Gasoline Plants	1200-3-18-.08	Vapor balance system Bottom or submerged fill for loading storage tanks. Pressure relief values 0.7 psi or highest pressures under state/local fire codes	Tanks with capacities <2000 gallons. Bulk plants in rural counties, Hamilton Co. and Shelby Co. <4000 gal/day annual average throughput.	Approval	
Gasoline Loading Terminals	1200-3-18-.09	Vapor control system that limits emissions to 80 mg/liter loaded.		Approval	

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	1200-3-18-.10	Submerged fill pipe and vapor control system. Delivery vessel must be vapor tight	Storage tanks equipped with floating roofs or approved equivalent. Tank ≤2000 gallons. Facilities in rural counties. Facilities with annual throughputs <260,000 gal in 1978 and each year thereafter.	Approval	
Refinery Leaks	1200-3-18-.23	Approved technical inspection program Repair and retest leaky components within 10 days (unless shutdown required). Maintain inspection/repair log Pipe or lines sealed with second valve, blind flange, plug or cap	Recycling of waste oil Pressure relief valves connected to operating flare header, vapor recovery devices, inaccessible valves, valves not externally regulated	Approval	
Surface Coating Miscellaneous Metal Parts	1200-3-18-.21	Clear coating - 4.3 lb VOC/gal Air dried - 3.5 lb VOC/gal Extreme performance - 3.5 lb VOC/gal Other - 3.0 lb VOC/gal	Autos/light duty trucks; cans; coils; magnet wire; metal furniture; large appliances; airplane exteriors; auto refinishing; custom top coating of autos/trucks (production <35/day), marine vessels, storage vessels, prime/top coating of aerospace components <100 TPY rural counties <25 TPY urban counties	Approval	

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Panel	1200-3-18-.20	Printed interior - 6.0 lb/1000 sq. ft. Natural finish hardwood plywood - 12.0 lb/1000 sq. ft. Class II finishes for hardboard - 10.0 lb/1000 sq. ft.	Exterior siding, tileboard or particleboard used as a furniture component <100 TPY rural counties <25 TPY urban counties	Approval	
Pharmaceutical Manufacture	1200-3-18-.27	Use condensers or equivalent to limit emissions from reactors, distillation, operations, crystallizers, centrifuges and vacuum dryers with potential emissions <15 lb/day Condenser outlet gas temperature: -25°C, VOC vapor pressure >5.8 psi at 20°C -15°C, VOC vapor pressure >2.9 psi at 20°C 0°C, VOC vapor pressures >1.5 psi at 20°C +10°C, VOC vapor pressures >1.0 psi at 20°C +25°C, VOC vapor pressures >0.5 psi at 20°C From air dryers/production Equipment exhaust systems - 90% control if uncontrolled emissions are 330 lb/day - 33 lb/day if uncontrolled emissions are <330 lb/day	Sources <15 lb/day Sources <100 TPY - rural Sources <25 TPY - urban	Approval	

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (continued)		Vapor balance system with 90% control efficiency (for truck/railcar deliveries to storage tanks >2000 gal, VOC vapor pressure >4.1 psi at 20°C			
		Pressure/vacuum conservation vents	Vapor pressure <1.5 psi		
		Enclose centrifuges, rotary vacuum filters, other filters with exposed liquid surface	Vapor pressure <0.5 psi		
		Covers on in-process tanks			
Rubber Tire Manufacture	1200-3-18-.26	Capture system	Tread-end cementing by manual application if reduction is equivalent to RACT	Approval	
		Control device - 90% efficiency	Water-based sprays containing ≤10% weighted avg VOCs		
		Undertread - 28.8 g./tire	<100 TPY - rural		
		Tread-end - 4.6 g./tire	<25 TPY - urban		
		Bead-dipping - 2.1 g./tire			
		Green tire spraying - 21.4 g./tire			
Graphic Arts	1200-3-18-.29	Volatile fraction of ink, as applied to substrate ≤25% organic compounds, ≥75% water or Ink minus water contains 60% nonvolatile material or Emissions reduction system, 75% reduction (publication rotogravure), 65% (packaging rotogravure), 60% (flexographic printing)	<100 TPY	Approval	

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage - Floating Roof Tanks	1200-3-18-.25	Secondary seals Openings in floating roof are equipped with covers . . . projections . . . below the liquid surface Rim vents . . . open when roof is floated off Emergency drain Annual inspections	Storage of waxy, heavy pour crude Capacity <420,000 gal for storage of crude oil prior to lease custody transfer Vapor pressure <1.5 psia Vapor pressure <4.0 psia and of welded construction with requisite seals	Approval	
Drycleaning-Perchloroethylene	1200-3-18-.28	Vent dry exhaust through carbon adsorption or equivalent 100 ppmv from dryer control device before dilution Cook/treat diatomaceous earth filters - residue has ≤25 Kg VOC/100 Kg wet waste materials Solvent still emissions - <60 Kg VOC/100 Kg wet waste materials Drain cartridges 24 hrs in advance of discard and dry without emissions	Coin-operated Insufficient steam for desorbing Insufficient space for adsorption equipment	Approval	Applies in Davidson Co. and facilitates ≥100 TPY (rural) or ≥25 TPY (urban)
Gasoline Tank Trucks	1200-3-18-.22	Pressure change ≤3.0 in of H_2O in 5 min. when pressurized to gauge pressure of 18 sq. in H_2O		Approval	See Note 1

STATE: TENNESSEE

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks (cont.d)		Repaired, retested expeditiously but no later than 30 days if testing shows non-compliance			
		Displays sticker showing date of pressure tightness testing			
Surface Coating Aerospace Components	1200-3-18-.30				
	(2)(a)	Primer - 5.4 lb/gal	From (2)(a), (b)(c) and (4) - coatings for masking and chemical etching; adhesive bonding primer, flight test coatings, fuel tank coatings	Approval	
	(2)(b)	Topcoat - 5.0 lb/gal			
	(2)(c)	Temporary topcoat - 2.1 lb/gal			
	(2)(d)	Surface preparation cleanup - vapor pressure of $\leq$1.5 psia at 21.1°C			
	(2)(e)	Closed containers for disposal of VOC - impregnated cloth/paper used for cleanup/paint removal/surface preparation	<100 TPY (rural) <25 TPY (urban)		
	(2)(f)	80% VOCs collected for cleanup of spray equipment			
	(2)(g)	Strippers - 3.3 lb/gal			
	(4)	As of 1-1-85, primer coat limited to 2.9 lb/gal			
RACT (Generic)	1200-3-18-.40	RACT for all facilities with actual potential VOC emissions >1000 TPY	All counties except Metropolitan Davidson county.	Approval	

Note 1: Applies to trucks equipped for vapor collection and which load/unload at regulated bulk plants, bulk terminals, and gasoline dispensing facilities in Davidson Co.

REGION V

Illinois

Indiana

Michigan

Ohio

Wisconsin

NOTE: The entire State of Minnesota has been classified as an attainment area for ozone.

ILLINOIS

Part 215 Organic Material Emission Standards and Limitations

SUBPART A: GENERAL PROVISIONS

215.100 Introduction
215.104 Definitions
215.105 Incorporations by Reference

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

215.121 Storage Containers
215.122 Loading Operations
215.123 Petroleum Liquid Storage Tanks
215.124 External Floating Roofs

SUBPART E: SOLVENT CLEANING

215.181 Solvent Cleaning in General
215.182 Cold Cleaning
215.183 Open Top Vapor Degreasing
215.184 Conveyorized Degreasing

SUBPART F: COATING OPERATIONS

215.204 Emission Limitations for Manufacturing Plants

(a) Automobile or Light Duty Truck Manufacturing Plants
(b) Can Coating
(c) Paper Coating
(d) Coil Coating
(e) Fabric Coating
(f) Vinyl Coating
(g) Metal Furniture Coating
(h) Large Appliance Coating
(i) Magnet Wire Coating
(j) Miscellaneous Metal Parts and Products
(k) Heavy Off-Highway Vehicle Products

SUBPART P: PRINTING AND PUBLISHING

215.401 Flexographic and Rotogravure Printing

SUBPART R: PETROLEUM REFINING AND RELATED INDUSTRIES; ASPHALT MATERIALS

215.441 Petroleum Refinery Waste Gas Disposal
215.442 Vacuum Producing Systems
215.433 Wastewater (Oil/Water) Separator
215.444 Process Unit Turnarounds
215.445 Leaks: General Requirements

SUBPART S: RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

215.461 Manufacture of Pneumatic Rubber Tires

SUBPART X: CONSTRUCTION

215.561 Architectural Coatings
2L5.563 Cutback Asphalt

SUBPART Y: GASOLINE DISTRIBUTION

215.581 Bulk Gasoline Plant
215.582 Bulk Gasoline Terminals
215.583 Gasoline Dispensing Facilities

SUBPART Z: DRY CLEANERS

215.601 Perchloroethylene Dry Cleaners

STATE: ILLINOIS
ATTAINMENT DATE: 1982, except for the Chicago Metropolitan area which includes Cook, DuPage, Kane, Lake, McHenry, and Will Counties, and the East St. Louis Metropolitan area which includes Madison, Monroe, and St. Claire Counties, 1987.
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, ethane 1,1,1-trichloroethane, and methylene chloride

Category	Reg. No.	State Limit or Requirement	lb/gal (minus water)	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	215.204	In Cook County:		a) does not apply if by 12/31/82 a limitation of 3.2 lb/gal is achieved & the prime surface coat application has a transfer efficiency ≥55%	Conditional approval	See Note 1
		Prime coat	1.2			
		Prime surface coat	2.8[a]			
		Topcoat	2.8[b]			
		Final repair coat	4.8[c]			
		In Boone County:		b) does not apply if by 12/31/85 a limitation of 3.6 lb/gal is achieved & the topcoat application has a transfer efficiency ≥65%		
		Prime coat	1.2			
		Prime surface coat	2.8			
		Topcoat	2.8[d]			
		Final repair coat	4.8			
		In remaining Counties:		c) limitation does not apply until 12/31/85		
		Prime coat	1.2	d) does not apply if by 12/31/84 a limitation of 3.6 lb/gal is achieved and the topcoat application has a transfer efficiency ≥55% and by 12/31/86 the topcoat application has a transfer efficiency ≥65%		
		Prime surface coat	2.8			
		Topcoat	2.8			
		Final repair coat	4.8			

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Cans	215.204	lb/gal coating (minus water) Sheet basecoat and over-varnish 2.8 Exterior basecoat and over-varnish 2.8 Interior body spray coat 4.2 Exterior end coat 4.2 Side seam spray coat 5.5 End seal compound coat 3.7		Conditional approval	See Note 1
Surface Coating Metal Coils	215.204	2.6 lb/gal coating, minus water		Conditional approval	See Note 1
Surface Coating Paper	215.204	2.9 lb/gal coating, minus water	Limitation shall not apply to equipment used for both printing and paper coating	Conditional approval	See Note 1
Surface Coating Fabrics	215.204	Fabric: 2.9 lb/gal coating, minus water Vinyl: 3.8 lb/gal coating, minus water		Conditional approval	See Note 1

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	215.204	3.0 lb/gal coating, minus water		Conditional approval	See Note 1
Surface Coating Large Appliances	205.204	2.8 lb/gal coating, minus water	Limitation does not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly provided that the volume of coating does not exceed 0.95 liters in any 8 hr period	Conditional approval	See Note 1
Surface Coating of Insulation of Magnet Wire	215.204	1.7 lb/gal coating, minus water		Conditional approval	See Note 1
Petroleum Liquids in Fixed Roof Tanks	215.123	Storage tank must be designed with one of the following: 1) floating roof (if organic material has v.p. <12.5 psi at 70°F) 2) vapor recovery system 85% efficiency; No defects in floating roof seals; routine inspections of floating roof seals every 6 months; maintain a record of results Cone roof tank required for crude oil	<40,000 gal. capacity Any tank equipped before 1/1/79 with one of the vapor loss control devices. <422,400 gal. capacity storing crude oil prior to custody transfer. <378,000 gal. capacity storing produced oil or condensate in crude oil gathering tanks subject to NSPS Tanks in which no volatile petroleum liquid is stored. A pressure tank	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	215.581	1) Transfer from vessel to tank - a) requires vapor balance system; b) delivery vessel hatches closed at all times; c) pressure relief valves set to release at no less than 0.7 psi; d) tank equipped with a submerged loading pipe; 2) Transfer from tank to vessel - a) submerged filling or bottom loading; plus requirements a, b, and c, above	1) <575 gal capacity <350,000 annual gallon throughput (avg. over the preceding 3 calendar years) 2) <1,000,000 gal annual gasoline throughput (avg. over the preceding 3 yrs)	Approval	The requirements for transfer from tank to vessel do not apply to bulk gasoline plants that distribute gasoline to gasoline dispensing facilities subject to Rule 215.583 or that are located in the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will, or Winnebago.
Gasoline Loading Terminals	215.582	Vapor control system that limits VOC emissions to <0.67 lb/1000 gal of gasoline loaded All loading and vapor return lines are vapor tight All displaced vapors are vented only to the Vapor Control System No liquid drainage from the loading device when not in use		Approval	Emmisions of VOCs shall be determined by procedures described in EPA-450/2-77-02b, Appendix A or equivalent procedure approved by the Agency

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	215.583	Tank has submerged loading pipe Vapor control system on storage tank Owner - provide instructions to operate for maintenance and procedures; repair, replace, or modify worn out components. Operator - maintain & operate vapor control system; notify owner of any malfunction; maintain gauges, meters or other testing devices.	Tank equipped with a floating roof or system of greater emission control. <2000 gal capacity tank and operating before 1/1/79 <575 gal capacity tank installed after 1/1/79 Tank is not located in any of the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will or Winnebago	Approval	
Miscellaneous Refinery Sources	215.442	Vacuum producing systems - vapor loss control system required on condensors, hot wells, and accumulators Wastewater (oil/water) separator - air pollution control equipment with 85% efficiency or more Process unit turnarounds - owner or operator must submit operation procedures for reducing VOC emissions no later than 11/1/79. This procedure should include: depressurization of the refinery process unit to a flare or other equipment of equal emission control; record keeping of the shut down date and the total estimated VOC emitted.	a) does not apply to vacuum producing systems on lube units b) Pumps and Compressors - discharge <2 cu. in. liquid VOC in any 15 min. period at standard conditions	Approval	

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	215.182 215.183 215.184	Cold cleaning - similar to CTG OTVD - similar to CTG Conveyorized degreasing - similar to CTG	Sources whose emissions of VOC do not exceed 15 lb in any one day, nor 3 lb in any one hour Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided that 1) the source is not an integral part of the production process; 2) emissions from source do not exceed 800 lb in any calendar month and the exemption is approved in writing by the agency	Conditional approval The State must submit results of a study on Rule 215 which exempts from controls solvent cleaners which emit <15 lb/day or 3 lb/hr of VOC, to EPA by 2/28/81.	On 9/10/80, EPA proposed to modify Rule 215.182 so that an owner or operator who satisfies Rule 215.182 is exempt from all provisions of Rules 215.183 and 215.184.
Cutback Asphalt	215.563	After 12/31/80; the use and application commences on 10/1 of any year and is completed by 4/30 of the next The cutback asphalt remains in stock after 4/30 of each year & may be used until depleted for patching potholes & similar repair work. Cutback asphalt is to be used solely as an asphalt prime coat		Approval	

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	215.445	- develop and conduct a monitoring program - leaking components >10,000 ppm must be recorded and tagged - repair and retest leaking components within 22 days of discovery, unless a leak cannot be repaired until unit is shutdown for turnaround - a report on leaks must be submitted twice a year - an alternative monitoring/reporting program may be approved if equivalent provisions are made - no valve except safety pressure relief valves, installed or operated at pipe or line end unless sealed.		Approval	
Surface Coating of Miscellaneous Metal Parts	215.204	Clearcoating - 4.3 lb/gal Air dried coating - 3.5 lb/gal Extreme performance - 3.5 lb/gal All other coatings - 3.0 lb/gal	The least restrictive limitation shall apply if more than one limitation pertains to a specific coating	Approval pending	See Note 3.
Surface Coating Flatwood Paneling		No regulations			
Pharmaceutical Manufacture					

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture	215.461	<u>For undertread cementing, tread end cementing or bead dipping:</u> - Capture system with ≥65% efficiency for tread end & bead dipping and 55.5% efficiency for undertread cementing - A control device that reduces emissions by at least 90% <u>For green tire spraying:</u> - Capture system with ≥90% efficiency - A control device that reduces emissions by at least 90% - Substitute normal solvent-based mold release compound water-based sprays containing: ≤5% VOC as applied for inside of tires ≤10% VOC a applied for outside of tires	Tread end cementing operation emitting ≤10 g/tire	Approval pending	In lieu of complyin with Rule 215.461 alternative VOC emission reduction system which is demonstrated to be equivalent may be utilized. See Note 3.
Graphic Arts	215.401	- Ink must contain <25% by volume of organic solvent and ≥75% by volume H_2O; or - Ink is ≤40% by volume (less H_2O) of the volatile fraction; or - A carbon adsorption system is operated to reduce VOC emissions by ≥90% by weight; or - An after burner system which oxidizes ≥90% nonmethane VOC emissions; or	Facilities emitting <1000 TPY	Approval pending	See Note 3.

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphics Arts (Continued)	215.401	- An alternative emission reduction system that has at least 90.0% reduction efficiency - A capture system is used in conjunction with any emission control system with an overall reduction of at least: - 75% - publication rotogravure - 65% - or maximum achievable for packaging rotogravure - 60% - flexographic printing			
Petroleum Liquid Storage, Floating Roof Tank	215.123 215.124	Subject to Rule 215.123 - Equipped with one of the vapor loss control devices - All seal closure devices must have no visible holes or defects - All openings except for automatic bleeder vents and rim space vents, should be equipped with covers, lids, or seals, in the closed position except when in use, and have projections into the tank which remain below the liquid surface at all times. - Inspections of floating roof seals every 6 months and records kept - A continuous secondary seal or other closure - Accumulated area of gaps >1/8 in. in width shall not exceed 1.0 in^2/ft of tank diameter - Emergency roof drains	Any floating roof tank exempted under Rule 215.123 - Welded-tank with a metallic-type shoe seal having a secondary seal from the top of the shoe seal to the tank wall or a liquid-mounted foam seal, a liquid-mounted liquid-filled-type seal or other closure device of equivalent control efficiency with true vapor pressure <4.0 psia @ 70^oF - Used to store crude oil	Approval pending	See Note 3.

581

STATE: ILLINOIS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	215.601	- Vent all dryer exhaust through a control device - Emit <100 ppmv VOC before dilution, or achieve 90% avg. reduction - Immediately repair all leaking components - Cook or treat all filters to contain ≤55 lb VOC/220 lb of wet waste material - Reduce VOC from all solvent stills to ≤132 lb/220 lb of wet waste material - Drain all filtration cartridges in housing or sealed container for 24 hr before discarding - Dry all drained cartridges without emitting VOC	- Coin-operated facilities - Facilities consuming <30 gal/mo of perchloroethylene.	Approval pending	See Note 3.
Gasoline Tank Trucks		No regulation			
Waste Gas Disposal from Vapor Blow Down System	215.143	No emission from any vbd system or safety relief valve		Approval	
Architectural Coatings	215.561	<20% by volume photochemically reactive material	<1 gal	Approval	Applies only to Chicago and St. Louis Metropolitan Areas.
Heavy Off-Highway Products	215.204	Extreme performance - 3.5 lb/gal primecoat Extreme performance Top coat-air dried - 4.3 lb/gal Final repair coat - air dried - 4.8 lb/gal		Approval	See Note 3.

STATE: ILLINOIS

NOTE 1: Owner and operators of coating lines may comply with the following rather than the State limits and requirements in Rule 215.204.

If the emissions are controlled by one of the following methods:
a) An afterburner system - provided that 75% of emissions from the coating line and 90% of nonmethane VOC's (measured as total combustible carbon) which enters the afterburner are oxidized to CO_2 and H_2O; or
b) A system having a control efficiency > that provided under 205(n)(2)(A) or 205(n)(1).

The limitations of Rule 215.204 shall not apply to:

a) Coating plants capable of emitting VOC at maximum rated capacity, in the absence of air pollution control equipment not less than 25 ton/year, or
b) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance.

NOTE 2: The State allows the use of a General Bubble Provision for Surface Coating

NOTE 3: Part of Illinois RACT II regulations. A proposed NPR is currently under review in Headquarters/OMB.

681

INDIANA

Article 8. Volatile Organic Compound Regulations

Rule 1.1 General Provisions

Sec. 1. Applicability
Sec. 2. Methods of compliance
Sec. 3. Compliance schedules
Sec. 4. Test methods and procedures
Sec. 5. Petition for alternative controls
Sec. 6. General reduction requirements for new sources or facilities
Sec. 7. Military specifications
Sec. 8. Transfer efficiency determination

Rule 2. Surface Coating Emission Limitations

Sec. 1. Applicability
Sec. 2. Automobiles and light duty trucks assembly
Sec. 3. Can coating
Sec. 4. Coil coating
Sec. 5. Paper coating
Sec. 6. Fabric and vinyl coating
Sec. 7. Metal furniture coating
Sec. 8. Large appliance coating
Sec. 9. Magnet wire coating
Sec. 10. Miscellaneous metal parts and products
Sec. 11. Flat wood paneling

Rule 3. Solvent Metal Cleaning Operating Requirements

Rule 4. Petroleum Sources

Sec. 1. Applicability
Sec. 2. Petroleum refinery
Sec. 3. Petroleum liquid storage
Sec. 4. Bulk gasoline terminals
Sec. 5. Bulk gasoline plants
Sec. 6. Gasoline dispensing facilities
Sec. 7. Transports and tank wagons
Sec. 8. Leaks from petroleum refineries
Sec. 9 Leaks from tank trucks and vapor collection systems

Rule 5. Miscellaneous Operations

Sec. 1. Applicability
Sec. 2. Asphalt paving
Sec. 3. Synthesized pharmaceutical manufacturing
Sec. 4. Pneumatic rubber tire manufacturing
Sec. 5. Graphic arts systems
Sec. 6. Perchloroethylene dry cleaning systems

Rule 6. Organic Solvent Emission Limitations

Sec. 1. Applicability
Sec. 2. Emission limits

STATE: INDIANA
ATTAINMENT DATE: 1987, except for Marion County, 1982
GEOGRAPHIC COVERAGE: Clark, Floyd, Lake, Marion, and Porter Counties

GENERAL EXEMPTIONS: 1,1,1-Trichloroethane, trichlorotrifluoroethane, and methylene chloride.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	2.2	Prime application, flash off area and oven operations - 1.9 lb/gal (excluding water). Topcoat application, flash off area and oven operations - 2.8 lb/gal (excluding water). Final repair application, flash off area and oven operations - 4.8 lb/gal (excluding water).	Sources less than 100 TPY	Approval	
Surface Coating Cans	2.3	Sheet basecoat and over varnish - 4.0 lb/gal (excluding water) after 12/31/85 - 2.8 lb/gal) Two and three piece can interior body spray; and two piece can exterior end operations - 4.2 lb/gal (excluding water). Coating applicators from three piece can side-seam spray operations - 5.5 lb/gal (excluding water). Coating applicator from end sealing compound operations - 3.7 lb/gal (excluding water). Coating applicator from two-piece can exterior operations - 2.8 lb/gal (excluding water).	Sources less than 100 TPY	Approval	

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	2.4	Coating applicator from prime and topcoat or single coat operations - 3.5 lb/gal (excluding water). After 12/31/85 - 2.6 lb/gal including water.	Sources less than 100 TPY	Approval	
Surface Coating Paper	2.5	Paper coating line - 2.9 lb/gal (excluding water).	Sources less than 100 TPY	Approval	
Surface Coating Fabrics	2.6	No regulation	Sources less than 100 TPY	Approval	Currently no rule, but one in development.
Surface Coating Metal Furniture	2.7	Coating applicator from prime and topcoat or single coat operation - 3.0 lb/gal (excluding water).	Sources less than 100 TPY	Approval	
Surface Coating Large Appliances	2.8	Coating applicator from prime single or topcoat operations - 2.8 lb/gal (excluding water).	Quick dry lacquers that repair scratches and nicks, provided the volume of coating does not exceed 200 gal/yr.	Approval	
Surface coating of Insulation of Magnet Wire	2.9	1.7 lb/gal (excluding water).	Sources less than 100 TPY	Approval	
Petroleum Liquids in Fixed Roof Tanks	4.3	Internal floating roof equipped with a closure seal. No visible holes in the seal All openings except stub drains are equipped with covers, lids, or seals.	Tanks with capacities 39,000 gallons containing VOC with vapor pressures $\leq$1.52 psi.	Approval	

061

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	4.5	Submerged fill pipe.		Approval	
Gasoline Loading Terminals	4.4	Vapor recovery system that limits emissions to 80 mg/liter loaded. Vapor collection system which directs all vapors to a fuel gas system or incinerator. Displaced vapors & gases vented only to the control system Drainage from the loading device when not in use prevented All loading and vapor lines have vapor-tight connections.	Railroad tank cars, barges	Approval	
Service Stations Stage 1	4.6	Submerged fill pipe. Displaced vapors are passed through a vapor-tight line to the transport. System insures that vapor line is transferred into tank. Pressure relief valves on storage vessels which release less at $\geq$0.7 psi.	Stations with throughputs <20,000 gal/month. Stations filled by tank wagons.	Unresolved conditional approval.	Indiana is planning to lower the the exemption.

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	4.2	Noncondensible VOCs may not be emitted from the condensers, hot wells, or accumulators. Wastewater separators must be covered and/or sealed. Board must be notified 30 days prior to a process unit turn-around. Depressurization venting from process unit must be controlled by a vapor recovery system, flare, or firebox, and no emissions from a process unit is allowed until pressure is reduced to 19.7 psi.	Lube oil units	Approval	
Solvent Metal Cleaning	3.2	Cold cleaners - similar to CTG Level A	Sources <100 TPY	Approval	
	3.3	OTVD - similar to CTG Level A			
	3.4	Conveyorized degreasers - similar to CTG Level A			
Cutback Asphalt	5.2	After 1/1/80: use of cutback asphalt or asphalt emulsion contains <7% oil distillate	1) Penetrating prime coating 2) Stockpile storage 3) November through March	Approval	All facilities constructed after 1/1/80 throughout the state are subject to this rule.

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	4.8	- Develop and conduct a monitoring program - Identify and tag all leaking components >10,000 ppm VOC - Repair and retest all leaking components no later than 15 days after discovery - Identify all leaking components that cannot be repaired until unit shutdown for turnaround - Except for safety pressure relief valves, no valves at pipe or line end unless sealed - Pipeline valves and pressure relief valves in VOC service must be marked.		Approval	
Surface Coating Miscellaneous Metal Parts	2.10	Clearcoatings - 4.3 lb/gal (minus water) Air dried - 3.5 lb/gal (minus water) Extreme performance coating - 3.5 lb/gal (minus water) Other coating applications - 3.0 lb/gal (minus water)	If more than one emission limitation applies then the least stringent emission limitation shall be applied Coating and solvent washings where the solvent is directed into containers that minimize evaporation	Approval	

193

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Paneling	2.11	Process — lbs per 1000 sq. ft. of coated surface Printed interior wall panels made of hardwood plywood and thin particleboard — 6.0 Natural finish hardwood plywood panels — 12.0 Class II finishes for hardboard peneling — 10.0		Approval	
Pharmaceutical Manufacture	5.3	For sources existing as of 11/1/80 and after - have surface condensers or equivalent emission controls without gas temp as follows: When VOC Vapor Pressure At 68°F (20° C) Exceeds — Outlet Gas Maximum Temperature 5.8 psia (40 kPa) — -13°F (-25°C) 2.9 psia (20 kPa) — 5°F (-15°C) 1.5 psia (10 kPa) — 32°F (0°C) 1.0 psia (7 kPa) — 50°F (10°C) 0.5 psia (3.5 kPa) — 77°F (25°C) - VOC emissions from air dryers and exhaust systems reduced by: ≥85% for ≥330 lb/day emissions ≤33 lb/day for ≤330 lb/day emissions - Provide a vapor balance system with ≥90% efficiency in reducing emissions from deliveries to storage tanks with capacity >2000 gal and vapor pressures >4.1 psi at 68°F	<15 lb/day If impractical due to dilution of exhaust gas with air	Approval	

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Cont'd)		- Install pressure/vacuum conservation vents required on all storage tanks with vapor pressures >1.5 psi at 68°F - Enclose all centrifuges, rotary vacuum filters and other filters which process VOC liquids with vapor pressure ≥0.5 psi at 68°F - Covers on all in-process tanks contain VOCs at any time - Repair all leaks observed running or dripping the first time equipment is off-line long enough to complete repair.			
Rubber Tire Manufacture	5.4	For undertread cementing, tread end cementing or bead dipping: - Capture system designed to achieve maximum reasonable capture - 85% VOC - Install and operate a control device that removes <95% VOC using a carbon adsorption system or ≥90% nonmethane VOC using an incineration system or 90% using an alternative system - Substitute water-based sprays for the normal solvent-based mold release compound - Water-based spray ≤10% organic solvent; or Install capture system designed to achieve maximum reasonable capture to 90% VOC and - Carbon adsorption system removing ≥95% VOC; or - Incineration system oxidizing ≥90% nonmethane VOCs; or - An alternative VOC emission reduction system with ≥90% efficiency	Specialty tires for antique or other vehicles produced on an irregular basis Technologically or economically unreasonable	Approval	

STATE: INDIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments

Graphic Arts	5.5	For green tire spraying:
		- Ink contains ≤25% by volume organic solvent and ≥75% by volume H_2O
		- Ink contains ≥60% (less water) non volatile material; or
		- Operates a carbon adsorption system reducing VOC by ≥90% or an incineration system which oxidizes ≥90% nonmethane VOC or an alternative emission reduction system with ≥90% efficiency
		- A capture system must be used to achieve maximum reasonable capture:
		  - 75% - publication rotogravure
		  - 75% - packaging rotogravure
		  - 70% - flexographic printing
			Existing facilities (as of 11/1/80) with emissions <100 TPY VOC
			New facilities (after 11/1/80) with emissions <25 TPY VOC
				Approval	

Petroleum Liquid in Floating Roof Tanks	4.3	Secondary seals; seals free of visible holes and tears; specified gap limits	Tanks storing crude oil with high pour point (≥50°F) Capacity <420,000 gal and store produced crude oil and condensate prior to lease custody transfer. Contain a petroleum liquid with v.p. <4.0 psi and are of welded construction with a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid fill-type seal or other closure device welded tank with a shoe-mounted secondary seal.		
Drycleaning Perchloroethylene		No regulation			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	4.7	Vapor balance or recovery system - Transport compartment hatches closed at all times during loading operations - No detectable leaks in pressure/ vacuum relief valves, hatch covers, liquid lines, etc. - Pressure relief valve set to release at ≥.7 psi - Collected vapor must be retained until the tank is refilled - Tested annually - Sustains pressure change 3" of H_2O in 5 min. when pressurized to 18" of H_2O or evacuated to 6" of H_2O - Repaired/tested within 15 days		Appproval	

Regulation APC 15 - Section 8(a)(2) allows the use of the Bubble Concept for Surface Coating, Solvent Metal Cleaning, and Miscellaneous Refinery Sources.

Rule 6. Shall apply to sources existing as of 1/1/80 in Lake and Marion Counties with emissions ≥100 TPY; and sources operating after 8/7/74 -- 12/30/80 anywhere in the state with emissions ≥100 TPY not limited by other Rules in this Article; VOC reduction of ≥85%

Part 6. Emission Limitations and Prohibitions-Existing Sources of Volatile Organic Compound Emissions

R336.1601 "Existing source" defined

R336.1602 General provisions for existing sources of volatile organic compound emissions

R336.1603 Compliance program

R336.1604 Storage of organic compounds having a true vapor pressure of more than 1.5 psia, but less than 11 psia, in existing stationary vessels of more than 40,000-gallon capacity.

R336.1605 Storage of organic compounds having a true vapor pressure of 11 or more psia, in existing stationary vessels of more than 40,000-gallons capacity.

R336.1606 Loading gasoline into existing stationary vessels of more than 2,000-gallon capacity at dispensing facilities handling 250,000 or more gallons per year.

R336.1607 Loading gasoline into existing stationary vessels of more than 2,000-gallon capacity at loading facilities.

R336.1608 Loading gasoline into existing delivery vessels at loading facilities handling less than 5,000,000 gallons per year.

R336.1609 Loading existing delivery vessels with organic compounds having a true vapor pressure of more than 1.5 psia at loading facilities handling 5,000,000 or more gallons of such compounds per year.

R336.1610 Existing coating lines; methods for determining amount of volatile organic compounds in a coating; emission rates for automobile, light-duty truck, and other coatings

R336.1611 Existing cold cleaners

R336.1612 Existing open top vapor degreasers

R336.1613 Existing conveyorized cold cleaners

R336.1614 Existing conveyorized vapor degreasers

R336.1615 Existing vacuum producing systems at petroleum refineries

R336.1616 Process unit turnarounds at petroleum refineries

R336.1617 Existing organic compound water separators at petroleum refineries

R336.1618 Use of cutback paving asphalt

R336.1619 Perchloroethylene; emissions from existing dry cleaning equipment; disposal

R336.1620 Emission of volatile organic compounds from the coating of flat wood paneling from existing coating lines.

R336.1621 Emission of volatile organic compounds from the coating of metallic surfaces from existing coating line.

R336.1622 Emission of volatile organic compound from existing component of a petroleum refinery; refinery monitoring program.

R336.1623 Storage of petroleum liquids having a true vapor pressure of more than 1.0 psia, but less than 11.0 psia, in existing external floating roof stationary vessels of more than 40,000-gallon capacity.

R336.1624 Emissions of volatile organic compound from an existing graphic arts lines

R336.1625 Emission of volatile organic compound from existing equipment utilized in the manufacturing of synthesized pharmaceutical products.

R336.1626 Emission of volatile organic compounds from existing equipment utilized in pneumatic rubber tire manufacturing.

R336.1627 Delivery vessels; vapor collection systems.

STATE: MICHIGAN
ATTAINMENT DATE: 1982, except for Metropolitan Detroit area, 1987
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, ethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	336.1610 (a)(2)	Table 62 of the regulation provides plant and process specific limitations for 25 plants, plus a general schedule for 'other' plants.		Approval	Note emission limitation changes of 7/5/83
Surface Coating Cans	336.1610 (a)(3)	lb VOC/gal (minus water) Process — Avg. — Max Sheet basecoat (ext. & int.) and overvarnish; two piece can ext. (basecoat & overvarnish — 2.8 — 2.9 Two and three piece can int. body spray; two piece can int. end (spray or toll coat) — 4.2 — 4.6 Three piece can side-seam spray — 5.5 — 5.8 End sealing compound — 4.2* — 4.4	Coating lines with an emission rate <100 lb/day or <2000 lb/mo	Approval	*4.2 is reduced to 3.7 on and after 12/31/85

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	335.1610 (a)(3)	2.6 lb/gal (minus water)	Coating lines with an emission rate <100 lb/day or <2000 lb/mo.	Approval	
Surface Coating Paper	336.1610 (a)(3)	2.9 lb/gal (minus water)	Coating lines with an emission rate <100 lb/day or <2000 lb/mo.	Approval	
Surface Coating Fabrics	336.1610 (b)(1)(2)	Fabric - 2.9 lb/gal (minus water) Vinyl - 4.5 lb/gal (minus water)	Coating lines with an emission rate <100 lb/day or <2000 lb/mo.	Approval	
Surface Coating Metal Furniture	336.1610 (a)(4)	Avg. - 3.0 lb/gal (minus water) Max. - 3.2 lb/gal (minus water)	Coating lines with an emission rate <100 lb/day or <2000 lb/mo.	Approval	
Surface Coating of Insulation of Magnet Wire	336.1610 (a)(5)	1.7 lb/gal (minus water)	Coating lines with an emission rate <100 lb/day or <2000 lb/mo.	Approval	
Petroleum Liquids in Fixed Roof Tanks	336.1604	Pressure tank, floating roof with closure seals, or vapor recovery system (90% min. recovery); covers, lids or seals on all openings	Organic compounds with a true vapor pressure $\leq$1.5 psia or $\geq$11 psia Tanks with a capacity $\leq$40,000 gallon	Approval	Reg. 336.1605 requires a pressure tank or vapor recovery system where organic compounds with a vapor pressure of $\geq$11; psia are stored

STATE: MICHIGAN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	336.1607 336.1608	90% efficient vapor balance system and submerged fill pipes Affects facilities with a throughput <5,000,000 gal/yr		Approval	
	336.1607(4)	Vapor tight collection line Pressure vacuum relief valves Posted operational procedures			Reg 336.1607(4) applies to affected areas described in Table 61 of the reg.
Gasoline Loading Terminals	336.1609	Facilities with an organic compound throughput ≥5,000,000 gal/yr Vapor recovery system which reduces emissions ≤0.7 lb/1000 gal transferred New facilities with an organic compound throughput ≥5,000,000 gal/yr - Submerged fill pipe - Facilities listed in locations on Table 61 and delivering to service stations subject to rule 336.1606 must be equipped with a vapor balance system - Vapor tight collection line - Complete drainage before disconnection of loading device - Pressure-vacuum relief valves (vapor tight) - Posted operation procedures	Organic compounds with a true vapor pressure ≤1.5 psia Loading crude oil or condensate using a submerged fill pipe	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals (continued)	336.1609	New facilities with an organic compound throughput ≥5,000,000 gal/yr - Submerged fill pipe - Vapor recovery system w/vapor tight collection line with emissions <0.7 lb/1000 gal VOC loaded - Complete drainage before disconnection of loading device - Pressure-vacuum relief valves (vapor tight) - Posted operation procedures			
Service Stations Stage I	336.1606 (1)+(2) (3)	Submerged fill pipe 90% efficient vapor balance Vapor tight collection line Affected areas are described in Table 61 of the Reg. applies to 336.1606(3)	<2000 gal capacity tanks Facilities with <250,000 gal/yr throughput	Approval	See Note 1
Miscellaneous Refinery Sources	336.1615	Vacuum producing system must be controlled		Approval	
	336.1616	Depressurization during process unit turnaround must be controlled until all vessels are at <5 psig.			
	336.1617	Organic compound-water separators must be covered and/or sealed			

STATE: MICHIGAN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	336.1611 336.1612 336.1613 336.1614	Provisions similar to those found in CTG	Cold cleaners and OTVD with an air/vapor interface <4 ft^2	Approval	
Cutback Asphalt	336.1618	Prohibition of manufacture or use of cutback asphalt from 5/1 to 9/30. Waivers available for long-life stockpiling and penetrating prime coats.		Approval	
Refinery Leaks	336.1622	Conduct a monitoring program All leaks >10,000 ppm must be repaired within 15 days of discovery and be tagged Special identification given to leaks that cannot be repair until unit shutdown for turnaround Except for safety pressure relief valves, all pipe or line end valves must be sealed		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	336.1621	lbs per gal of coating (minus water) Clear Coat 4.3 Air or forced air-dried items (not oven dried) 3.5 Truck Final Repair 4.8 Outdoor or harsh exposure or extreme performance characteristics 3.5 Other 3.0	Applicator flash-off w/<2000 lbs/mo & 10 TPY VOC emissions if the geographic site is <30 TPY total combined emission rate N.g. fire after-burner used during 10/1 - 3/31 w/no violation when not in use	Approval	
Surface Coating of Flatwood Paneling	336.1620	lbs per 1000 sq. ft. of coated surface Printed interior wall panels made of hardwood plywood and thin particleboard 6.0 Natural finish hardware plywood panels 12.0 Class II finishes for hardboard paneling 10.0		Approval	

STATE: MICHIGAN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	336.1625	Emissions controlled by a condenser w/outlet gas temperature <: When VOC Vapor Pressure At 68°F (20°C) Exceeds — Outlet Gas Maximum Temperature 5.8 psia(40 kPa) — -13°F(-25°C) 2.9psia(20 kPa) — 5°F(-15°C) 1.5psia(10 kPa) — +32°F(0°C) 1.0psia(7 kPa) — +50°F(10°C) 0.5psia(3.5 kPa) — +77°F(25°C) Alternative equivalent controls Emissions from air dryer or exhaust system reduce VOC by ≥90% or <33 lbs/day A vapor balance control system providing 90% control utilized when loading VOCs with a vapor pressure >4.1 psia at 68°F from a truck or railcar into an existing stationary vessel with >2000 gal capacity Stored VOC with vapor pressure >1.5 psia at 68°F must be equipped with a pressure/vacuum conservation vent set at 0.03 psia or equivalent control system Filters having exposed liquid surface with VOC pressure ≥0.5 psia at 68°F must be enclosed	Facility with emissions <15 lbs/day Facility with uncontrolled emissions <330 lb/day if reduced to ≤33 lb/day	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (continued)	336.1625	All in-process tanks which may contain VOCs at any time must be covered except for production, sampling, maintenance or inspection procedures Observed running or dripping leaks must be repaired as soon as possible.			
Rubber Tire Manufacture	336.1626	Green Tire Coating: - VOC inside and outside coating ≤10% by volume; or - An emission rate equal to the rate Undertread-and tread-end-cementing and bead-dipping: - VOC emissions from solvent-borne coating reduced by 70%	Trend-end-cementing where coating is applied manually by a brush or similar applicator	Approval	

Graphic Arts	336.1624	- Applied ink <25% VOC
		- Nonvolatile fraction >60% or
		- Overall reduction of VOC emission is:
		  - 75% - publication rotogravure
		  - 65% - packaging rotogravure
		  - 60% - flexographic printing
			- Development of inks w/o addition of control equipment comply with one of the rules may allow a waiver until 12/31/84 for compliance surface or reverse printing on nonabsorbant substrate	Approval	

STATE: MICHIGAN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (continued)	336.1624		- Within 1 geographical site a combined emission rate <100 lbs/day or 2000 lb/mo - Requirements achieved using n.g.-fired afterburner from 11/1 - 3/31 when not in use does not violate rule - Offset lithographic or letterpress		

Petroleum Liquid Storage, Floating Roof Tank	336.1623	Vapor pressure >1.0 psia - <11 psia
		- Continuous rim-mounted secondary seals:
		  - Free of visible holes
		  - Intact and uniform
		  - Vapor-mounted primary seals w/accumulated gaps >1/8" must be <1.0 in^2/ft of tank diameter
		- All openings in the external floating roof except automatic fleeder and rim vents must be equipped with covers, seals or lids with projections below the liquid surface at all times
		- Emergency floating roof drains
		- Maintain records of inspections
			- <40,000 gal capacity
			- store waxy, heavy-pour crude oil
			- <420,000 gal capacity storing produced crude oil and condensate before Lease custody transfer
			- Welded-tank with a metallic-type shoe seal, a liquid-mounted foam seal, or a liquid-mounted, liquid-filled-type seal w/v.p. <4.0 lbs/in^2
			- Tank w/v.p. <1.5 lbs/in^2 provided a record of information is maintained
				Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	336.1619	- No observed or detected leaks - Filters contain <25 lbs/ 100 lbs of wet waste material - Solvent still sludge contain <60 lbs/100 lbs of wet waste material - Cartridge filters must be drained for 24 hrs in housing or enclosed container - All exhaust gas must be vented to a control device where emissions are <100 ppm/ 10 min avg. except when the door to the dryer of a transfer-type unit or dry-to-dry-type unit is opened to load or remove fabric	- Facilities with inadequate space for a control device and processes <25 lbs/day of fabric	Approval	
Gasoline Tank Trucks	336.1627	- No pressure change >0.1 psia in 5 minutes when pressurized to 0.6 psia gauge or evacuated to -0.2 psia gauge - Annual test required during 4/1 - 6/30 with written notification to the commission >7 days prior, and documentation submitted by 7/15 - No visible liquid leaks - Vapor collection system includes all piping, seals, hoses, connections, pressure-vacuum vents; gauge pressure ≤0.6 psia and vacuum ≤0.2 psia gauge - Within 1 in. of all leaks must have a reading <100% of lower explosive limit		Approval	

NOTES: 1. Rule 336.1603(3) allows the use of the Bubble Concept for VOC.

2. Rule 336.1610(4) allows the use of coating transfer efficiencies which are determined by procedures acceptable to the Commission.

210

OHIO

3745-21-09 Control of Emissions of Organic Compounds from Stationary Sources

(A) Applicability
(C) Surface coating of automobiles and light-duty trucks
(D) Surface coating of cans
(E) (Coil coating)
(F) (Paper coating)
(G) (Fabric coating)
(H) (Vinyl coating)
(I) Surface coating of metal furniture
(J) (Magnet wire coating)
(K) Surface coating of large appliances
(L) Storage of petroleum liquids in fixed roof tanks
(M) Refinery vacuum producing systems, wastewater separators, and process unit turnarounds
(N) Use of cutback asphalts and emulsified asphalts in road construction and maintenance
(O) Solvent metal cleaning
(P) Bulk gasoline plant
(Q) Bulk gasoline terminal
(R) Gasoline dispensing facilities (stage I vapor control systems)
(T) Leaks from petroleum refinery equipment
(U) Surface coating of miscellaneous metal parts and products
(V) Gasoline tank trucks
(W) Synthesized pharmaceutical manufacturing facility
(X) Rubber tire manufacturing facility
(Y) Flexographic packaging, rotogravure, and publication rotogravure printing lines
(Z) Storage of petroleum liquids in external floating roof tanks
(AA) Dry cleaning facility

STATE: OHIO
ATTAINMENT DATE: 1982, except for the Cincinnati and Cleveland Metropolitan areas, 1987.
GEOGRAPHIC COVERAGE: Butler, Clermont, Cuyahoga, Franklin, Greene, Hamilton, Lake, Lorain, Lucas, Mahoning, Medina, Montgomery, Portage, Stark, Summitt, Trumbull, Warren, and Wood Counties. All other counties applies to facilities having potential to emit 100 TPY.

GENERAL EXEMPTIONS: Methyl Chloroform and methylene chloride

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	3745-21-09(C)	Process	lb VOC/gal excluding water	Any coating line which uses <3 gallon of coating per day	Approval	
		Electrodeposition	1.2			
		Guidecoat/surfacer	2.9			
		Prime coat line without electrodeposition	1.9			
		Topcoat	2.8			
		Final repair topcoat	4.8			
Surface Coating Cans	3745-21-09(D)	Process	lb VOC/gal excluding water	Any coating line which uses <3 gallon of coating per day	Approval	See Note 1.
		Two piece cans				
		Basecoat	2.8			
		Overvarnish	2.8			
		Interior body	4.2			
		Exterior bottom end	4.2			
		End sealing compound	3.7			
		Three piece cans				
		Basecoat	2.8			
		Overvarnish	2.8			
		Interior body	4.2			
		Side seam	5.5			
		End sealing	3.7			

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	3745-21-09(E)	2.6 lb/gal of coating, excluding water, from a prime coat topcoat, or single coat coating line	Any coating line which uses <3 gallons of coating per day	Approval	
Surface Coating Paper	3745-21-09(F)	2.9 lb/gal of coating, excluding water	Any coating line which uses <3 gallons of coating per day	Approval	
Surface Coating Fabrics	3745-21-09(G) (H)	2.9 lb/gal of coating, excluding water from fabric coating 4.8 lb/gal of coating, excluding water from vinyl coating; or 25% of total VOC a capture system with either 75% efficiency or a maximum reasonable amount	Any coating line which uses <3 gallons of coating per day	Approval	
Surface Coating Metal Furniture	3745-21-09(I)	3.0 lb/gal of coating, excluding water from a prime and topcoat or single application line	Any coating line which uses <3 gallons of coating per day	Approval	
Surface Coating Large Applicances	3745-21-09(K)	2.8 lb/gal of coating, excluding water from prime, single coat, or topcoat line.	Any coating line using <3 gal/day Quick drying lacquers for repair of nicks and scratches.	Approval	
Surface Coating of Insulation of Magnet Wire	3745-21-09(J)	1.7 lb/gal of coating, excluding water	Any coating line which uses <3 gal/day of coating material	Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	3745-21-09(L)	Petroleum liquid with true V.P. >1.52 psia must be stored in tank with internal floating roof or equivalent control, all openings have lids, covers or seals.	<40,000 gallon tanks <422,000 gallon tanks used to store produced crude oil and condensate prior to lease custody transfer.	Approval	
Bulk Gasoline Plants	3745-21-09(P)	Submerged fill pipe and vapor balance or vapor control system at least 90% efficient Loading rack equipped for top submerged filling or bottom filling; displaced vapor is processed by a vapor balance system or control system recovering 90% VOC; vapor tight loading lines.	Average daily throughputs of <4000 gallons of gasoline	Approval	
Gasoline Loading Terminals	3745-21-09(Q)	Vapor control system with VOC emissions from control system $\leq$0.67 lb/1000 gal of gasoline loaded Loading rack equipped with a vapor collection system with load pressure $\leq$6" and 13" of watergauge pressure prevent drainage from loading device when not in use; vapor tight loading lines prevent evaporation; repair leaks $\geq$100% of the lower explosive limit in vapor collection and control system within 15 days.		Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	3745-21-09 (R)	Submerged fill pipe, and vapor balance or control system at least 90% efficient	Facilities with annual throughputs of <240,000 gal of gasoline Transfers made to a stationary storage tank equipped with an internal or external floating roof.	Approval	The 240,000 gallon exemption remains an outstanding conditional approval item for the Akron, Cleveland, and Cincinnati areas.
Miscellaneous Refinery Sources	3745-21-09(M)	(1) Vacuum producing system - incineration or recovery in refinery fuel gas systems (2) Wastewater separator - equip with covers and seals, and all sections are to be kept closed except when in use. (3) Process unit turnaround - combustion of vapors as refinery fuel gas or flaring to ≤19.7 psia	Separators used solely for once-through noncontact cooling water or intermittent tank farm drainage	Approval	
Solvent Metal Cleaning	3745-21-09(O)	Cold cleaner - cover, drainage area, freeboard of ≥0.7 if V.P. >0.6 psia OTVD - cover; safety switches; freeboard ≥0.75, chiller, enclosed design carbon adsorption or equivalent control, good operating practice.		Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (con't)	3734-21-90(0)	Conveyorized degreaser - drying tunnel; safety switches required if solvent is heated to its boiling point; carbon adsorption, covers, chiller, or equivalent control on units having an air/vapor interface >22 ft^2, good operating practice			
Cutback Asphalt	3745-21 09(N)	Use is prohibited	Use is permitted during period from 9/15 through 5/15, as a penetrating prime coat, or stockpile storage for ≥30 days, hand application for patching or crack sealing.	Approval	
Refinery Leaks	3745.21-09 (T)	- Periodic monitoring for leaks - All pipeline and pressure relief valves in gas service must be tagged - Repair all leaks >10,000 ppm, VOC - Maintenance or monitoring log - Quarterly report	Various components with are not likely to leak, which leak insignificantly, or which are not reasonably accessible	Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	3745-21-09 (U)	Process / lbs/gal of coating (minus water): Zinc rich primer 4.0 Interior coating of steel pail or drum 5.0 Exterior coating of steel pail or drum 3.5 Clear Coat 4.3 Air or forced air-dried items (not oven dried) 3.5 Outdoor or harsh exposure or extreme performance characteristics 3.5 Other 3.0 or - Equipped with a capture and control system with ≥90% efficiency.	- Exterior coating to marine vessels, air planes - Employs ≤10 gal/day - Application of customized topcoat or any related customized single coat to motor vehicles if less than 35 vehicles/day - Application of refinishing coating to motor vehicles	Approval	
Surface Coating of Flatwood Paneling		No regulation		Approval	
Pharmaceutical Manufacture	3745-21-09 (W)	When VOC Vapor Pressure At 68°F (20°C) Exceeds / Outlet Gas Maximum Temperature: 5.8 psia (40 kPa) -13°F (-25°C) 2.9 psia (20 kPa) 5°F (-15°C) 1.5 psia (10 kPa) 32°F (0°C) 1.0 psia (7 kPa) 50°F (10°C) 0.5 psia (3.5 kPa) 77°F (25°C) - Emissions from air dryer or exhaust system ≤33 lb/day or is reduced by ≥90%	- VOCs collected by a production equipment exhaust system - Any operations or equipment not associated with the production of drugs	Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (con't)	3745-21-09	- Any filter exposed to VOC liquid with V.P. >0.5 psia at 68°F must be covered - All in-process tanks which may contain VOCs at anytime must be covered except when access is required - Observed running or dripping leaks must be repaired as soon as possible - Reactor, distillation operation crystallizer, centrifuge, and vacuum dryer must have a surface condensor (≤50,000 ppm organic compounds) or equivalent - Storage tak holding organic compound liquid must have a conservation vent if vapor pressure >1.5 psia (at 68°F); vapor balance system if vapor pressure >4.1 psia (at 68° F) and tank capacity >2,000 gallons			
Rubber Tire Manufacture	3745-21-09 (X)	For undertread and tread-end cementing, bead dipping and green tire spraying: - Capture and control system with at least 90% efficiency or a maximum reasonable amount.	Green tire spraying with ≤6%/day for inside tire and ≤11%/day for outside tire Rubber tire size ≤20" and cross-sectional dimension ≤12.8". - Discharge of VOCs ≤100 lbs/day - Tread-end cementing applied manually with a brush.	Approval	
Graphic Arts	3745-21-09 (Y)	- Ink VOC content ≤40% (minus water); or is 25% of the volatile content; or - Has a capture and control system with at least: 65% - flexographic printing	- Application of a vinyl coating - Facility emitting <100 t/yr - Used solely to check quality of new cylinders	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphics Arts (cont'd)		70% - packaging rotogravure 80% - publication rotogravure or a maximum reasonable amount and control system with ≥90% efficiency			
Petroleum Liquid Storage in Floating Roof Tanks	3745-21-09 (Z)	- All seals must have no visible holes or leaks - A welded tank must have a total seal gap ≤ : . 10 in^2/ft of tank diameter-liquid mounted primary seal or mechanical shoe primary seal . 10 in^2/ft of tank diameter-vapor mounted or flexible wiper primary seal installed before 1/1/81 . 1.0 in^2/ft of tank diameter-rim or shoe mounted secondary seal - A rivited tank must have a maximum seal gap ≤2.5"-mechanical primary seal; 1.5"- liquid mounted vapor mounted, flexible wiper primary seal and shoe or rim mounted secondary seal - All openings in the external floating roof except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells must have a cover, seal or lid in the closed position and have a projection into the tank below the liquid surface - Emergency roof drain with slotted cover - Inspection and monitoring requirements	Tank equipped with: a liquid mounted primary seal and a rim mounted secondary seal; a mechanical shoe primary seal and rim mounted secondary seal, or a shoe mounted secondary seal installed before 1/1/81; a vapor mounted primary seal and rim mounted secondary seal; a flexible wiper primary seal and a rim mounted secondary seal; a liquid mounted primary seal or mechanical shoe primary seal holding crude oil; or a seal, closure, or device equivalent to those specified in this rule. - Tank with <40,000 gal capacity - Tank with <420,000 gal capacity used to store produced crude oil or condensate prior to custody transfer - Tank contain petroleum liquid with V.P. < 1.5 psia	Approval	

STATE: OHIO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene	3745-21-09 (AA)	Carbon adsorber emitting ≤100 ppm perchloroethylene; or Refrigerated vapor condenser; or Equivalent device Filter waste contains ≤25% VOC Solvent still waste contains ≤60% VOC Filter cartridge must be drained in the housing for ≥24 hrs before discarding All leaks must be prepared immediately.	Coin-operated facilities Facility which demonstrates inadequate space for a carbon adsorber or refrigerated condenser Fabric processed <60,000 lbs	Approval	
Gasoline Tank Trucks	3745-21-09 (V)	Annual test for leaks Keep leak test records for 2 years Display sticker with i.d. number and test information Any leak ≥100% of the lower explosive limit must be repaired within 15 days or use discontinued Annual certification of leak test compliance to facilities with vapor balance system and vapor control systems	Pressure decrease <3.0 in H_2O in vacuum test Tank capacity <5000 gal and does not receive or deliver gasoline from any loading rack or tank equipped with a vapor balance or vapor control system	Approval	Applies state-wide

NOTE: 1. Rule 3745-21-09(d) allows the use of the Bubble Concept for Surface Coating Cans.

WISCONSIN

NR 154.13 Control of Organic Compound Emissions

(1) General limitations
(2) Storage of organic compounds
(3) Transfer operations and associated equipment
(4) Surface coating and printing processes
(5) Use of road surfacing materials
(6) Solvent cleaning operations
(7) Petroleum refinery sources
(8) Rubber products manufacture
(9) Chemical manufacture
(10) [Reserved)
(11) Other direct sources
(12) Compliance schedules
(13) Exceptions, registrations and deferrals

STATE: WISCONSIN GENERAL EXEMPTIONS: Methane, Ethane, Freon 113

ATTAINMENT DATE: 1982, except for the Milwaukee Metropolitan area, which includes Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties, 1987.

GEOGRAPHIC COVERAGE: Counties of: Brown, Calumet, Dane, Dodge, Fond duLac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago Counties. In all other counties, applies to facilities having potential to emit 100 tons (see Note 1).

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating (See Note 1)	NR154.13 (4)(g) 1.-5.	See Note 4	Coating of wheels, trunk interiors, steering columns or nonmetallic parts; sealers or non-priming anti-rust coatings	Approval	Emission limit may be interpreted as weighted daily average or instantaneous arithmetic average of colors in use, as specified in compliance plan. Limits referenced to waterborne coating conventionally apply. Coating line with equivalent emission per unit area coated complies.
Surface Coating Cans	NR154.13 (4)(c) 1.-2.	Process: Sheet basecoat (ext. & int.) and overvarnish or two piece can exterior (basecoat & overvarnish) — limitation excluding water: 2.8 lb/gal Two and three piece can interior body spray and two piece can exterior end (spray or roll coat) — 4.2 lb/gal Three piece can sideseam spray — 5.5 lb/gal End sealing compound — 3.7 lb/gal		Approval	

STATE: WISCONSIN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	NR154.13 (4)(d) 1 & 2	2.6 lb/gal, excluding water, from prime and topcoat or single coat operations		Approval	
Surface Coating Paper	NR154.13 (4)(e) 1 & 2	2.9 lb/gal, excluding water, from a paper coating line	equipment on which a non-uniform coating is applied to a substrate	Approval	
Surface Coating Fabrics	NR154.13 (4)(f) 1 & 2	2.9 lb/gal, excluding water, from each fabric coating applicator 3.8 lb/gal, excluding water, from each vinyl coating applicator		Approval	
Surface Coating Metal Furniture	NR154.13 (4)(h) 1 & 2	3.0 lb/gal, excluding water, from prime topcoat or single coat operations		Approval	
Surface Coating Large Appliances	NR154.13 (4)(i) 1 & 2	2.8 lbs/gal, excluding water, from single, prime, or topcoat operations	quick-drying lacquers for repair of assembly scratches if quantity is less than 1 quart per 8 hr per coating line	Approval	
Surface Coating of Insulation of Magnet Wire	NR154.13 (4)(j) 1 & 2	1.7 lb/gal, excluding water, from magnet wire coating		Approval	

STATE: WISCONSIN

Petroleum Liquids in Fixed Roof Tanks	NR154.13 (2)(a)5	Internal floating roof or equivalent if petroleum liquid vapor pressure as stored is <1.52 psia plus equipment maintenance and inspection requirements all per RACT	≤40,000 gallons or ≤1,600,000 liters if storing crude oil or condensate prior to lease custody transfer	Approval	SIP also regulates storage of "photochemically reactive organic substances", and is applicable Statewide.
Bulk Gasoline Plants	NR154.13 (3)(b) 1 thru 6	Applies to loading and storage if throughput >350,000 gal/yr (3 yr avg) and to unloading, loading, and storage if throughput ≥1,000,000 gal. per year (3 yr avg) and all delivery vessels - requires tank and truck submerged or bottom fill and vapor balance - all per RACT	Tanks ≤575 gal. capacity or operations in attainment areas	Approval	
Gasoline Loading Terminals	NR154.13 (3)(a) 1 thru 4	Applies to all terminals and requires vapor control system and vapor tight conditions such that emissions are not more than 80 mg/l, vapor collection requirements		Approval	See Note 5 SIP also regulates transfer of "photochemically reactive organic substances"

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	NR154.13 (3)(c) 1 thru 8	Requires Stage I during ozone season	- supplied from exempt bulk plants - located in attainment areas - delivery vessels supplying exempt facilities exclusively - transfers to floating roof tanks - transfers to existing tanks <2000 gal capacity - transfers to new tanks <575 gal capacity - transfers to tanks <575 gal for agricultural use	Approval	Ozone season defined as May 1 to Sept 30 of any year. FR Notice indicates that regulation has been revised to require Stage I year-round
Miscellaneous Refinery Sources	NR154.13 (7)(a), (7)(b), (7)(c)	Vacuum producing system noncondensible emissions from condensers or accumulators to firebox incinerator or compressed to fuel gas Wastewater separators must have approved covers and seals that are closed except when in use Process unit turnaround control of 90% of emissions and no venting until pressure less than 19.7 psia		Approval	

STATE: WISCONSIN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments

Solvent Metal Cleaning	NR154.13 (6)(a) 1 thru 4	Cold cleaners - similar to CTG
		
		OTVD - similar to CTG
		
		Conveyorized degreasers - similar to CTG
			- cold cleaners to which less than 1.5 gal are added per day
			- open top vapor or conveyorized degreasers emitting less than 15 lb/day or 3 lb/hour in attainment areas
			- units used for research pilot, etc. if emissions less than 800 lb/month
			- exempt from major control devices:
			  - cold cleaners <1.1 ft^2 open area
			  - OTVD <10.8 ft^2 open area
			  - conveyorized <21.6 ft^2 air/vapor interface
				Approval	

Cutback Asphalt	NR154.13 (5)(a) 1 & 2	During ozone season: - use of rapid curing cutback asphalts not permitted - after 5/1/80; can be used only as single coat liquid on aggregate base to control dust - after 5/1/81, can be used as above plus as penetrating prime coat in first and last months of ozone season	Uses other than application to surfaces traversed by motor vehicles, bicycles, or pedestrians	Approval	Ozone season defined as May 1 to Sept 30 of any year

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	NR154.13 (7)(d)	- Pipe or line end valves must be sealed if not a safety pressure relief value - All valves in gaseous service must be marked - Develop and operate a monitoring program - Leaking components >10,000 ppm must be identified and tagged, repaired and re-tested within 15 days, if possible, or when unit is shut down for turnaround - Submit quarterly reports and keep records for at least 3 years		Approval	
Surface Coating of Miscellaneous Metal Parts	NR154.13 (4)(m)	Process / Lbs per gal of coating (minus water): Clear Coat: 4.3 Air or forced air-dried items (not oven dried): 4.8 After 12/31/82; 4.3 After 12/31/85 Outdoor or harsh exposure or extreme performance characteristics: 3.5 All other coating applications: 3.0	facilities with total VOC emissions ≤10 TPY with no controls - airplane exteriors - marine vessel exteriors - adhesives - specialized coatings required by state or federal agencies - sealants or fillers - solvent washings directed into containers that prevent evaporation	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Flatwood Paneling	NR154.13 (4)(k)	Process: Printed interior wall panels made of hardwood plywood and thin particleboard — Lbs per 1000 sq. ft. of coated surface: 6.0 Natural finish hardwood plywood panels: 12.0 Class II finishes for hardboard paneling: 10.0		Approval	SIP also regulates process lines emitting VOC controlling emission by ≥85%
Pharmaceutical Manufacture	NR154.13 (2)(b) (3)(e)	Pressure-vacuum vents set at ±0.2 kPa or equivalent control on storage vessels with vp >10.5 kPa at 21°C	<1000 gal. capacity	Approval	
	(3)(e)	VOC v.p. >4.1 psia: Storage tank equipped with a vapor balance system or equivalent system with ≥90% efficiency	<2000 gal. capacity		
	(9)	Equip with surface condensors or equally effective control. Outlet gas shall not exceed:			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Cont'd)		When VOC Vapor Pressure At 68°F (20°C) Exceeds / Outlet Gas Maximum Temperature 5.8 psia (40kPa) -13°F(-25°C) 2.9 psia (20kPa) 5°F(-15°C) 1.5 psia (10kPa) 32°F(0°C) 1.0 psia (7kPa) 50°F(10°C) 0.5 psia (3.5kPa) 77°F(25°C) - emissions from air dryer and equipment exhaust systems - 33 lb/day or to 10% uncontrolled rate, whichever is less stringent - enclosed all filters with exposed liquid surface w/VOC v.p. ≥0.5 psia at 68°F - all in-process tanks containing VOC at any time must be covered - repair all visually detectible leaks first time equipment is off-line long enough to complete the repair			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Cont'd)		When VOC Vapor Pressure At 68°F (20°C) Exceeds / Outlet Gas Maximum Temperature 5.8 psia (40kPa) -13°F(-25°C) 2.9 psia (20kPa) 5°F(-15°C) 1.5 psia (10kPa) 32°F(0°C) 1.0 psia (7kPa) 50°F(10°C) 0.5 psia (3.5kPa) 77°F(25°C) - emissions from air dryer and equipment exhaust systems - 33 lb/day or to 10% uncontrolled rate, whichever is less stringent - enclosed all filters with exposed liquid surface w/VOC v.p. ≥0.5 psia at 68°F - all in-process tanks containing VOC at any time must be covered - repair all visually detectible leaks first time equipment is off-line long enough to complete the repair			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture	NR154.13 (8)(a)	For undertread cementing, tread end cementing and bead dipping: - carbon adsorption system reducing VOCs ≥90% - incineration or catalytic oxidation system oxidizing ≥90% nonmethane VOCs - alternative emissions reduction system with at least 90% efficiency - operate a capture system to provide maximum reasonable capture and transfer to control device For green tire spraying: along with the above requirements must utilize water-based mold release compound sprays containing ≥90% H_2O.	- production of specialty tires for antique or other vehicles produced on an irregular basis - VOC emissions ≤57g/tire	Approval	
Graphic Arts	NR154.13 (4)(e)	- ink contains ≤25% organic solvent and ≥75% H_2O - ink contains ≥60% nonvolatile material or - equipped with a vapor recovery system reduced VOC ≥90% by weight - incineration or catalytic oxidation system that reduces nonmethane VOCs 90% - alternative system equally effective - capture system efficiency shall be: 75% - publication rotogravure 70% - packaging rotogravure 65% - flexographic printing		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage - Floating Roof Tank	NR154.13 (2)(a)b	- has a continuous secondary seal - all seal closure devices have no visible holes and are intact and uniformly in place - vapor mounted seals with accumulated area of gaps >1/8 in. in width shall not exceed 1.0 in^2/ft of tank diameter - all opening in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves, are equipped with covers, seals, or lids in the closed position, and have projections into the tank below the liquid surface at all times - emergency roof drains provided - tanks with v.p. >1.0 psia must maintain records for at least 2 years	- ≤40,000 gal capacity - ≤15,000 liters capacity storing crude petroleum and condensate prior to custody transfer - storage vessels used to store waxy, heavy pour crude petroleum - tanks storing petroleum liquids with v.p. <1.52 psia - welded tank with a metallic-type shoe, liquid mounted foam, liquid-mounted liquid filled type seal with v.p. <4.0 psia - welded tank equipped with metallic-type shoe primary seal which has a secondary seal from the top of the shoe to the tank wall.	Approval	
Drycleaning - Perchloroethylene		No regulation			

STATE: WISCONSIN

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	NR154.13 (3)(a)7	- must display current sticker demonstrating compliance with annual test - vapor collection equipment - vapor tight connections - pressure change <3" H_2O in 5 minutes when pressurized to 18" H_2O or evacuated to pressure of 6" H_2O - vehicles failing test must be repaired and retest within 15 days - reading ≤100% of LEL at 2.5 cm from all points around a potential leak source - no visible leaks during loading and unloading operations		Approval	
Drycleaning - Petroleum Solvent	NR154.13 (6)(c)	Essentially the same as CTG except that testing and monitoring requirements were not included.	VOC emissions equivalent to ≤100 TPY	Conditional Approval	EPA proposed to approve if testing and monitoring requirements are submitted.

NOTES: 1. Surface coating regulations apply to sources >3 lb/hr or 15 lb/day in the 21 listed counties. In rest of the State they apply to sources >100 TPY. The 21 listed counties are exempt when surface coating is used exclusively for analysis, product quality, or commercial acceptance testing if not integral to the process and/or emissions are less than 800 lb/month. All other regulations apply to the 21 counties and all other counties >100 TPY.

2. Rule NR154.13(13)(b) allows the use of the Bubble Concept.

3. SIP requires operation of fossil-fuel fired incinerators used to control emissions only during ozone season if not required for other purposes.

4.

Automobiles	Emission limit in #VOC/gal (excluding water)	application date
If enamel coating used prior to 1/1/79		
electrodeposition	1.2	after 12/31/83
spray primer-surfacer	2.8	after 12/31/82
topcoat	3.7	after 12/31/82
	2.8	after 12/31/85
final repair	4.8	after 12/31/82
If lacquer coating used prior to 1/1/79		
electrodeposition	2.2	until 12/31/82
	1.2	after 12/31/82
spray primer-surfacer	3.0	after 12/31/80
	2.8	after 12/31/86
topcoat	5.8	until 12/31/81
	5.0	after 12/31/81
	4.8	after 12/31/86
final repair	6.5	until 12/31/86
	4.8	after 12/31/86
Light Duty Trucks		
electrodeposition	2.2	until 12/31/82
	1.2	after 12/31/80
spray primer-surface	3.4	after 12/31/80
	3.6	after 12/31/82
	2.8	after 12/30/87
final repair	4.8	after 12/31/82

5. NR154.13(3)(f) applies to VOC transfer in S.EWI Intrastate AQCR with v.p. >1.52 psia with tank capacity >1000 gal must be equipped with a submerged fill pipe if no other controls exist. Facilities with >40,000 gal/day throughput: must have a vapor collection and disposal system; vapor-tight seal, or underfill method with tank trucks or trailers used. Facilities with ≤40,000 gal/day throughput: underfill method or submerged fill pipe.

REGION VI

Arkansas

Louisiana

New Mexico

Oklahoma

Texas

ARKANSAS

Arkansas Regulations for the Control of Volatile Organic Compounds

Section 1. Title

Section 2. Purpose

Section 3. Definitions

Section 4. General Provisions

Section 5. Provisions for Specific Processes

- 5.1 Gasoline storage and marketing
- 5.2 Petroleum liquid storage
- 5.3 Cutback asphalt
- 5.4 Gasoline tank trucks and vapor collection systems
- 5.5 Surface coating miscellaneous
- 5.6 External floating roof

Section 6. Severability

STATE: ARKANSAS
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Pulaski County

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, Freon 113, and methylene chloride

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating					
Surface Coating Cans					
Surface Coating Metal Coils					
Surface Coating Paper					
Surface Coating Fabrics					
Surface Coating Metal Furniture		No regulation		Approval	State has certified that there are no sources >100 TPY in nonattainment areas.
Surface Coating Large Appliances					
Surface Coating of Insulation of Magnet Wire					
Miscellaneous Refinery Sources					
Solvent Metal Cleaning					

STATE: ARKANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed-Roof Tanks	5.2	Storing VOC with v.p. <1.52 psia in tanks ≥150,000 liters must: 1) Meet NSPS requirements, or 2) Retrofit with floating roof or internal floating cover with seal that meets NSPS specifications 3) Already have floating roof or internal cover well maintained		Approval	
Bulk Gasoline Plants	5.1(a) & 5.1(b)	1) Submerged fill pipe or bottom loading for storage tanks >1000 gallons 2) Submerged fill pipe or bottom loading on all gasoline delivery vessels loaded at facilities with throughput <87,000 liters (23,000 gallons) per day		Approval	
Gasoline Loading Terminals	5.1(c)	Limit emissions to 80 mg/l of gasoline loaded (4.7 grains/gal), if throughput ≥23,000 gallons/day, by use of a vapor control system		Approval	
Service Stations Stage 1	5.1(a)	Submerged fill pipe or bottom loading for storage tanks >4000 liters (1000 gallons)	<10,000 gal/mo. throughput.	Approval	

STATE: ARKANSAS

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Cutback Asphalt	5.3	Prohibited use		- Penetrating prime coat - When maximum temperature is less than 15°C (59°F) on day of application	Approval	
Refinery Leaks		No regulations				
Surface Coating of Miscellaneous Metal Parts	5.5	Process	lbs per gal of coating (minus water)	- Coating and solvent washings where the solvent is directed into containers that prevent evaporation - If more than one emission limitation applies then the least stringent emission limitation shall be applied.	Approval	
		Clear Coat	4.3			
		Air or forced air-dried items (not oven dried)	3.5			
		Outdoor or harsh exposure or extreme performance characteristics	3.5			
		All other applications	3.0			
		Apply low solvent coating technology				
		Incineration or equivalent system which oxidizes <90% of the nonmethane VOC				
		A capture system with an overall reduction of <80%				

STATE: ARKANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Panels					
Pharmaceutical Manufacture		No regulations			
Rubber Tire Manufacture					
Graphic Arts					
Petroleum Liquids in Floating Roof Tanks	5.6	- Rim mounted continuous secondary seal or equivalent control device - All seal closure devices must have: - no visible openings - be intact and uniformly in place - Vapor mounted seals must have gap area between secondary seal and tank wall <1.0 in^2/ft of tank diameter - All openings in the external floating roof, except automatic bleeder vents and rim vents, should be sealed when not in use and provide a projection below the liquid surface - Emergency roof drains provided	Tank capacity <39,000 gal and vapor pressure <1.52 psia Tank capacity <10,000 bbls storing crude oil and condensate prior to custody transfer A welded tank with a metallic-type shoe seal and a secondary seal from the top of the shoe seal to the tank wall Tanks storing waxy, heavy pour crudes	Approval	
Drycleaning-Perchloroethylene		No regulation			

STATE: ARKANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments

Gasoline Tank Trucks	5.4(a)&(b)	- Annual certification test
		- Pressure change <3" of water in 5 minutes when pressurized to 18" of water or evacuated to 6" of water
		- Any repairs necessary to pass must be made within 15 days
		- Vapor collection system must prevent:
		  - Gauge pressure <6" of water
		  - <100% of the LEL at 2.5 cm around the perimeter of a potential leak source during loading and unloading operations
				Approval	

0470

LOUISIANA

22.0 Control of Emission of Organic Compounds from New Sources and Existing Sources

22.1 Purpose
22.2 Scope
22.3 Storage of volatile organic compounds (Large tanks)
22.4 Storage of volatile organic compounds (small tanks)
22.5 Volatile organic compounds
22.6 Volatile organic compounds water separation
22.7 Pumps, compressors, valves, etc.
22.8 Waste gas disposal
22.9 Organic solvents
22.10 Exemptions
22.11 Variances
22.12 Vapor degreasers
22.13 Cutback paving asphalt
22.14 Filling of gasoline storage vessels (Stage I)
22.15 Gasoline bulk plants
22.16 Bulk gasoline terminals
22.17 Refinery vacuum producing systems
22.18 Refinery process unit turnaround
22.19 Perchloroethylene dry cleaning systems
22.20 Graphic arts (printing) by rotogravure and flexographic processes
22.21 Fugitive emission control
22.22 Gasoline terminal vapor-tight control procedure
22.23 Pharmaceutical manufacturing facilities

STATE: LOUISIANA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Statewide

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, methylene chloride, Freon 113, dichlorodifluoromethane, trifluoromethane, dichlorotetrafluoroethane, chloropentafluoroethane, and chlorodifluoromethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	22.9.2(f)	Prime application flashoff area and oven - 1.2 lb/gal (minus water) Prime surface application, flashoff area and oven - 2.8 lb/gal (minus water) Topcoat application, flashoff area and oven - 2.8 lb/gal (minus water) Final repair application, flashoff area and oven - Before 12/31/81 - 6.5 lb/gal (minus water) After 12/31/81 - 4.8 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating Cans	22.9.2(b)	Sheet basecoat and overvarnish; Two piece can exterior - 2.8 lb/gal (minus water) Two and three piece can interior body spray; Two piece can exterior end - 4.2 lb/gal (minus water) Three piece can sideseam spray - 5.5 lb/gal (minus water) End sealing compound - 3.7 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating Metal Coils	22.9.2(c)	Prime and topcoat, or single coat operation - 2.6 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Paper	22.9.2(d)	Coating line - 2.9 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating Fabrics	22.9.2(e)	Fabric facility - 2.9 lb/gal (minus water) Vinyl facility - 3.8 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating Metal Furniture	22.9.2(h)	3.0 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating Large Appliances	22.9.2(a)	Before 12/31/81 - 4.3 lb/gal (minus water) After 12/31/81 - 2.8 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Surface Coating of Insulation of Magnet Wire	22.9.2(g)	Coating line - 1.7 lb/gal (minus water)	Operations with potential to emit <100 lb/day	Approval	
Petroleum Liquids in Fixed Roof Tanks	22.3.1	Submerged fill and internal floating roof, unless vapor pressure $\geq$11.0 psia	Tanks <40,000 gallons	Approval	
Bulk Gasoline Plants	22.15.1	Vapor Balance System Maximum allowable loss: 1.2 lb/1000 gal transferred	Plants with throughout of <20,000 gal/day that service only stations not subject to Stage I controls	Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	22.16.1	Vapor control system which is 90% efficient.	<20,000 gal/day throughput	Approval	
	22.5	Mass emissions may not exceed 4.7 grains/gal of gasoline loaded			
Service Stations Stage I	22.14.1	Submerged fill pipe Displaced vapors must be contained by a vapor recovery system. Maximum allowable discharge - 1.2 lb/1000 gal transferred	Tanks ≤2000 gallons installed before 1/1/79 Retail gasoline outlets with throughputs of <500,000 gal/yr Tanks with internal or external floating roofs or equivalent Tanks ≤550 gal used only for fueling farm equipment	Approval	
Miscellaneous Refinery Sources	22.17	Vacuum producing systems - incineration or other control methods	Sources <100 TPY	Approval	
	22.6.1	Wastewater separators - sealed openings, Floating roofs with closure seals, vapor disposal systems, or other approved equipment.			
	22.18	Process unit turnaround - depressurization to ≤5 psig before venting to atmosphere.			

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	22.12.1	Open top vapor degreasers (OTVD) Similar to CTG, no requirements for a major control device	Methyl chloroform Methylene chloride Freon 113 Degreasing operations on a facility wide basis which emit ≤100 tons/year	Conditional approval, 2/14/80 Proposed approval, 11/10/80, State could not meet conditions, regulation was revised to RACT	
	22.12.2	Conveyorized degreasers Similar to CTG, no requirements for a major control device.			
	22.12.3	Cold cleaners Similar to CTG, no requirements for a major control device.			
Cutback Asphalt	22.13	May not use without approval of Technical Secretary. May be approved where: 1) Long life stockpile storage is necessary, or 2) It is used at ambient temp. 50°F, or 3) It is to be used solely as a penetrating prime coat.		Approval	
Refinery Leaks	22.21	No leaks >10,000 ppm VOC No valve, except safety pressure relief valves, shall be located at the end of a pipe or line unless sealed with a second valve, blind flange, plug or cap. Every reasonable effort should be made to repair a leaking component within 15 days, or until the next scheduled shutdown if necessary. Conduct a monitoring program		Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	22.9.2(i)	Process	lbs per gal of coating (minus water)	Exterior coating of aircraft Auto refinishing Exterior coating of marine Auto customizing top coating (<35 vehicles per day)	Approval	
		Clear Coat	4.3			
		Air or forced air-dried items (not oven dried)	3.5			
		Frequent color change and/or large numbers of colors applied, or first coat on un-treated ferrous substrate	3.0			
		Outdoor or harsh exposure or extreme performance characteristics	3.5			
		No or infrequent color change, or small number of colors applied				
		(1) Powder Coating	0.4			
		(2) Other	3.0			
Surface Coating of Flatwood Paneling	22.9.2(j)	Process	lbs per 1000 sq. ft. of coated surface	Operations with potential to emit <100 lb/day	Approval	
		Printed interior wall panels made of hardwood plywood and thin particleboard	6.0			
		Natural finish hardwood plywood panels	12.0			
		Class II finishes for hardboard paneling	10.0			

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	22.23	Surface condensers or equivalent controls are required provided: When VOC Vapor Pressure At 68°F (20°C) Exceeds — Outlet Gas Maximum Temperature 5.8 psia (40 kPa) — -13°F (-25°C) 2.9 psia (20 kPa) — 5°F (-15°C) 1.5 psia (10 kPa) — 32°F (0°C) 1.0 psia (7 kPa) — 50°F (10°C) 0.5 psia (3.5 kPa) — 77°F (25°C) - Air dryers, and production equipment exhaust systems must reduce VOC emissions by ≥90% for 330 lb/day of VOC or, ≤33 lb/day for <330 lb/day of VOC - Provide a vapor balance system or equivalent control that is ≥90% effective in reducing emissions from truck or railcar deliveries to storage tanks >2000 gal capacity and vapor pressures >4.1 psia @ 20°C - Install pressure/vacuum conservation vents at ± 0.03 psi gauge on all storage tanks with vapor pressure >1.5 psia @ 20°C - Enclose all centrifuges, rotary vacuum filters and other filters w/exposed liquid surfaces with vapor pressure ≥0.5 psia @ 20°C - Install covers on all in-process tanks contaning VOC at any time. These covers must remain closed unless access is required. - All observed running or dripping leaks must be repaired the first time equipment is off-line for a long enough period of time to complete the repair.	- Reactors, Distillation Operations, Crystallizers, Centrifuges and Vacuum Dryers emitting <15 lb/day VOC - Any facility which has a potential to emit a combined weight of VOC <550 lb/day	Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture	----	No regulation	----	----	----
Graphic Arts	22.20	Ink as it is applied, contains ≥60% by volume of nonvolatile material (less water) Applies to affected machines on which both surface coating and printing operations are performed Ink must contain ≤25.0% by volume of organic solvent and ≥75% by volume water Adsorption or incineration system having ≥90% (by weight) control efficiency with an overall reduction of at least: - 75% for publication rotogravure - 65% packaging rotogravure - 60% flexograpic printing	Facility emitting <100 tons/yr	Approval	
Petroleum Liquid Storage, Floating Roof Tank	22.3.1.2	Welded or a riveted rank with vapor pressure >4.0 psi and one of the following primary seals: metallic-type shoe seal, liquid-mounted foam seal, liquid-mounted liquid filled type seal, or any other closure device demonstrated equivalent All seal closure devices must have: - No visible openings - Be intact and uniformly in place - Gap areas, >1/8" in width shall not exceed 1.0 in^2/ft of tank diameter All openings in the external floating roof, except automatic bleeder vents and rim vents, should be equipped with cover, seal, or lid in the closed position except when in use and have projections below the liquid surface. Emergency roof drain provided Rim mounted secondary seals	Nominal storage capacity ≤420,000 gal storing crude oil or condensate prior to lease custody transfer Tanks storing waxy, heavy pour crudes A welded tank with a metallic-type shoe seal and a secondary seal from the top of the shoe seal to the tank wall External floating roof tanks with a closure or other devices installed which will control VOC emissions with an effectiveness greater than the seals required above.	Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Perchloroethylene	22.19	No liquid leakage of VOCs Vaporized perchloroethylene shall be handled in vapor-tight equipment and transfer lines Dryer exhaust must be vented through a carbon adsorber or equivalent system for a concentration ≤100 ppm before dilution. Filter residue must be cooked or treated so that <25 lbs of solvent/100 lbs of wet waste material exists Solvent still residue contains less than 60 lbs/100 lbs of wet waste material Filter cartridges must be drained in the filter housing >24 hrs and dried in a dryer tumbler if possible Alternate filtration or distillation systems with demonstrated equivalent efficiencies can be used	Facilities where an adsorber cannot be accomodated because of inadequate space or insufficient steam capacity is available to desorb adsorbers -Coin operated facilities (must maintain existing devices) -Potentially emits <550 lbs/day combined weight of VOCs	Approval	
Gasoline Tank Trucks	22.22.1	Pressure change <3" of water in 5 minutes when pressurized to 18" of water or evacuated to 6" of water Sticker must be displayed on each tank with identification number and date of last pressure and vacuum test passed. Annual certification, displayed near DOT certification plate Any repairs necessary to pass must be made within 15 days		Approval	

STATE: LOUISIANA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks (cont'd)	22.22.2	Vapor Collection System Loading & unloading operations shall not produce ≥100% of the lower explosive limit at 2.5 cm around the perimeter of a potential leak source Vapor collection and processing equipment must prevent tank truck gauge pressure from exceeding 18" of water and prevent vacuum pressure from exceeding 6" of water A monitoring and recording keeping system is required.	All loading and unloading facilities for crude oil and condensate, for ships and barges and for facilities loading and unloading only liquified petroleum gas.		

250

NEW MEXICO

629. Petroleum Processing Facilities - Hydrocarbon Separation Facility

630. Petroleum Processing Facilities - Storage, Handling, Pumping, Blowdown Systems

631. Hydrocarbon Storage Facilities

681. Gasification Plants - Storage, Handling, Pumping, Safety Relief Valves, Blowdown System

STATE: NEW MEXICO (Albuquerque Urban Area)
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Bernalillo County

GENERAL EXEMPTIONS: None

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating					
Surface Coating Cans					
Surface Coating Metal Coils					
Surface Coating Paper		No regulations		Approval	See Note
Surface Coating Fabrics					
Surface Coating Metal Furniture					
Surface Coating of Insulation of Magnet Wire					
Surface Coating of Large Appliances		No regulation		Approval	No appliance manufacturers in the area

STATE: NEW MEXICO (Alburquerque Urban Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed-Roof Tanks	630.A & 630.B	Vapor pressure >11psia: - Pressure vessel capable of maintaining working pressures sufficient at all times to minimize vapor or gas loss to the atmosphere, or equivalent system -Vapor pressure = 3-11 pisa for tank capacity greater than 250,000 gal; (existing facilities); vapor pressure = 1.5-11 psia for tank capacity >65,000 gal: (new facilities): - floating roof with seals - vapor recovery system; or - equivalent equipment Vapor pressure >1.5 psia - gas tight gauging and sampling devices Vapor pressure <1.5 psia - conservation vent - equivalent device	Tank Capacity <65,000 gal	Approval	
Bulk Gasoline Plant		No regulation		Approval	See Note

STATE: NEW MEXICO (Albuquerque Urban Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	11.02 & 630.C	- For facilities with avg. daily throughput of >20,000 gal, dispaced vapor and air must be vented only to the vapor collection system when loading transport vehicles. - Vapor recovery or disposal of at least 90% by weight of vapors so that total emissions does not exceed 1.24 lbs. per 1000 gal. transferred. - Requires tight connections and other operationsl controls. - No leaks, complete drainage, from loading device.	V.P. <1.5 psia	Approval	
Service Stations Stage I	11.03	- Loading into containers 3000 gal. requires submerged fill pipe or approved control device to reduce emissions to <1.15 lb VOC/1,000 gal. loaded. - Submerged fill pipe or vapor recovery for tanks greater than 500 gal. but less than 3000 gal.	<100,000 gallons annual throughput with v.p. ≥1.5 psia	Approval	

STATE: NEW MEXICO (Alburquerque Urban Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	630.D	Rotating pump or compressor equipped with seals	V.P. <1.5 psia	Approval	
	630.E	Blowdown System disposal of gases by: Combustion - smokeless flare - equivalent method			
Solvent Metal Cleaning		No regulation		Approval	See Note
Cutback Asphalt	11.08	Permit for applications >100 lb. - Less than 25 tons/yr VOC allowed to be emitted under permit	Asphalt cement cut with naptha exempt except for 6/15 through 9/15	Approval	
Refinery Leaks					
Surface Coating Miscellaneous Metal Parts					
Surface Coating - Flatwood Panels		No regulations		Approval	See Note
Pharmaceutical Manufacture					
Rubber Tire Manufacture					
Graphic Arts					

STATE: NEW MEXICO (Alburquerque Urban Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Floating Roof Tanks Drycleaning - Perchloroethylene Gasoline Tank Trucks		No regulations		Approval	See Note

NOTE: Since mobile source emissions account for 88 percent of total 1977 emissions, control strategy is dependent primarily on reducing motor vehicle emissions. No regulations have been established for these sources of emissions since they are considered insignificant.

858

OKLAHOMA

Regulation 3.7 Control of Emission of Organic Materials

3.7.1 General Provisions

- (a) Purpose
- (b) Definitions
- (c) Applicability and compliance
- (d) Exemptions

3.7.2 Control of Volatile Organic Compounds (VOC)

- (a) Storage of VOC
- (b) Loading of volatile organic compounds
- (c) Effluent water separators
- (d) Pumps and compressors

3.7.3 Control of Organic Solvents

- (a) Coating of parts and products
- (b) Clean up with organic solvents

3.7.4 Specific Processes

- (a) Waste gas disposal
- (b) Fuel-burning and refuse-burning equipment

3.7.5 Nonattainment Areas: Additional Controls Required

3.7.5-1 Applicability

3.7.5-2 Petroleum refinery operations

- (a) Petroleum refinery equipment leaks
- (b) Refinery process unit turnaround
- (c) Refinery vacuum producing system
- (d) Refinery effluent water separators

3.7.5-3 Petroleum processing and storage

- (a) Petroleum liquid storage in external floating roof tanks

3.7.5-4 Specific operations

- (a) Cutback asphalt
- (b) Vapor recovery systems
- (c) Metal cleaning
- (d) Graphic arts systems
- (e) Manufacture of pneumatic rubber tires

STATE: OKLAHOMA
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Oklahoma and Tulsa Counties

GENERAL EXEMPTIONS: VOC with v.p. <1.5 psi and organic solvents with b.p. >220°F at 0.5 mm Hg unless solvent will be exposed to temperatures exceeding 220°F, and methane, ethane, 1,1,1-trichloroethane, methylene chloride, Freon 113

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating Surface Coating Cans Surface Coating Metal Coils Surface Coating Paper Surface Coating Fabrics Surface Coating Metal Furniture Surface Coating Large Appliances Surface Coating of Insulation of Magnet Wire Surface Coating of Flatwood Paneling		No regulations (See group II)		Approval	State has certified that no facilities are known to exist in nonattainment areas.
Petroleum Liquids in Fixed Roof Tanks	3.7.2(a)	>40,000 gallons a) pressure tanks b) floating roof c) vapor recovery - 85% efficient ≥400 gallons and <40,000 gallons	Tank <400 gal capacity	Approval	

STATE: OKLAHOMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks (con't)	3.7.5-4(b)	Applies in Tulsa and Oklahoma Counties Tanks of capacity >40,000 gallons a) pressure tanks b) floating roof if v.p <11.0 psia c) vapor recovery with 90% efficiency Tanks of capacity: >400 gallons and ≤40,000 gallons a) Submerged fill b) vapor recovery with 90% efficiency if throughput >30,000 gal/day			
	15.522	a) submerged fill b) vapor recovery with 85% efficiency			
Bulk Gasoline Plants		Covered under 15.522, 3.7.2(b), qne 15.524.	Does not apply to sources <100 tons per year	Approval	
Gasoline Loading Terminals	3.7.2(b)	Vapor collection system with bottom loading or submerged fill and one or more of the following: 1) Absorption/adsorption or condensation system with 90% efficiency 2) Incineration with 95% efficiency 3) Other approved equipment with at least 90% efficiency	Does not apply to sources <100 tons per year	Approval	
Service Stations Stage I	15.522 3.7.2(b) 15.524	Covered indirectly if determined to be a major source		Approval	
Miscellaneous Refinery Sources	3.7.5.2(c) 3.7.5.2(b) 3.7.2.(c)	Same as CTG for Process Unit Turnaround and Vacuum Product Systems Wastewater separators - sealed openings floating roofs with closure seals, vapor recovery system or other approved equipment	Exemptions for turnaround may be granted from October through April	Approval	

STATE: OKLAHOMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	3.7.5-4(c)	Cold cleaners - similar to CTG Open Top Vapor Degreaser - similar to CTG Conveyorized Degreasers - similar to CTG except no major equipment required.	Methyl chloroform Methylene chloride Freon 113	Approval	State has certified that no sources >100 TPY exist Approved alternative if 80% collection efficiency obtained
Cutback Asphalt	3.7.5-4(a)	Shall not prepare or apply without written permission		Approval	Approval may be granted from October through April
Refinery Leaks	3.7.5-2(a)	- Develop and conduct a monitoring program - Leaking components >10,000 ppm VOCs must be recorded, tagged and repaired no later than 30 days after discovery - Identify all leaks that cannot be repaired until unit is shutdown for turnaround - Pipeline valves and pressure relief valves in gaseous VOC service must be clearly marked		Approval	
Surface Coating of Miscellaneous Metal Parts	3.7.3(a)	Discharge of VOCs must not be in excess of the amounts listed below	Facilities emitting >100 lbs/day VOC emissions reducing by:	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts (con't)		Pounds of Organic Solvent per Gallon of Paint (Less Water) Type of Coating — Jan 79 Limit — Jan 81 Limit — Jan 82 Limit Alkyd Primer — 5.6 — 5.2 — 4.8 Vinyls — 6.4 — 6.4 — 6.0 NC Lacquers — 6.8 — 6.6 — 6.4 Acrylics — 6.4 — 6.4 — 6.0 Epoxies — 5.6 — 5.2 — 4.8 Maintenance Finishes — 5.6 — 5.2 — 4.8 Custom Products Finishes — 6.8 — 6.6 — 6.5 - Discharge of organic materials >3000 lbs/day or >450 lbs/hr is prohibited unless discharge is reduced by >85%	90% - incineration 85% - absorption or equivalent process		
Pharmaceutical Manufacture	No regulation			Approval	State has certified that no sources >100 TPY exist in this category.

STATE: OKLAHOMA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments

Graphic Arts	3.7.5-4(d)	- Ink must contain <25.0% by volume of organic solvent and ≥75% by volume water
		- Carbon adsorption system to reduce VOC emissions by >90% by weight
		- Incineration system oxidizing >90% of the nonmethane solvent
		- An alternative organic solvent emission reduction system that has at least 90.0% reduction efficiency
		- Ink as it is applied, contains ≥60% by volume nonvolatile material (less water)
		- A capture system with an overall reduction of at least:
		  - 75% for publication rotogravure
		  - 65% packaging rotogravure
		  - 60% flexographic printing
			Facilities emitting <100 TPY	Approval	

Rubber Tire Manufacture	3.7.5-4(e)	In Oklahoma County: for undertread cementing, and automatic tread end cementing - Must have a capture system designed to achieve maximum reasonable capture Install and operate a control device that meets the following requirements: - Carbon adsorption system >90% 3 year removal avg; or - Incineration system that oxidizes at least 90% nonmethane VOC; or an alternative emission reduction system certified to have at least a 90% reduction efficiency - for greentire spraying	- Production of specialty tires for antique or other vehicles when produced on an irregular basis or with short production runs Manual tread and cementing operations Total VOC emissions <57 g/tire for specified operations	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Rubber Tire Manufacture (Cont'd)		- Substitute water-based sprays for the normal solvent-based mold release compound, or; - Install a capture system where at least 90% of VOC emitted are captured and transferred to a control device - Has a carbon adsorption system that will remove >95% VOC by weight from the gases ducted to the control device; or an incineration system that oxidizes ≥90% nonmethane VOC; or - An alternative emission reduction system certified to have at least a 90% reduction efficiency			
Petroleum Liquid Storage, Floating Roof Tank	3.7.5-3(a)	For major source facilities in Tulsa and Okalahoma Counties only: Vessel must be fitted with: - a continous secondary seal or other closure ≥ in effectiveness - all seal closure devices must have - no visible opening - be intact and uniformly in place Vapor mounted primary seals with accumulated area of gaps >1/8" in width shall not exceed 1.0 in^2/ft of tank diameter All openings in the external floating roof expected for automatic bleeder vents, and rim space vent, should be equipped with covers, seals, or lid the closed position except when in use and have projections into the tank which remain below the liquid surface at all times. Emergency roof drains provided Routine inspections performed annually and records maintained	<u>In Tulsa and Oklahoma Counties</u>: tanks <40,000 gal - tanks storing waxy, high pour point crude oil - have capacities <420,000 gal and store produced crude oil and condensate - Contain a petroleum liquid with a true vapor pressure <1.5 psia - Contains a petroleum liquid with a true vapor pressure <4.0 psia and meets construction requirements	Approval	
Drycleaning-Perchloroethylene		No regulation			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	3.7.5-4(b)(4)	- Tank truck tanks must be vapor tight except when sampling, gauging or inspecting - Deliver VOCs to a vapor recovery/ disposal system - The facility accepting the VOCs must be able to receive displaced organic vapors		Approval	

TEXAS

Texas Regulation V: Control of Air Pollution from Volatile Organic Compounds

115.11 Storage of Volatile Carbon Compounds in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties

115.21 Loading and Unloading Facilities in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montogmery, San Patricio, and Travis Counties

115.31 Water Separation in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montomery, San Patricio, and Travis Counties

115.41 Vent Gas Control in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties

115.60 Storage of Crude Oil or Condensate in Hardin, Matagorda, Montgomery, and San Patricio Counties

115.61 Required control devices
115.62 Exemptions

115.91 Compliance in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties

115.101 Storage of Volatile Organic Compounds in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.111 Facilities for Loading and Unloading of Volatile Organic Compounds in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.121 Gasoline Bulk Plants in Harris County

115.131 Filling of Gasoline Storage Vessels (Stage 1) for Motor Vehicle Dispensing Facilities in Brazoria, Dallas, Galveston, Harris, and Tarrant Counties

115.141 Water Separation in Ozone Nonattainment Areas in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.151 Process Unit Turnaround and Vacuum-Producing Systems in Petroleum Refineries in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.161 Vent Gas Control in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.171 Specified Solvent-Using Process in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.191 Surface Coating Processes in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.201 Graphic Arts (Printing) by Rotogravure and Flexographic Processes in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.221 Perchloroethylene Dry Cleaning Systems in Bexar, Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.231 Pharmaceutical Manufacturing Facilities in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.251 Compliance in Brazoria, Dallas, Refineries in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.261 Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks in Harris County

115.271 Fugitive Emission Control in Synthetic Organic Chemical, Polymer, and Resin Manufacturing Plants in Harris County

115.401 Alternate Means of Control in Bexar, Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.411 Volatile Organic Compound Exemption Status in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

115.421 Compliance in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties

STATE: TEXAS
ATTAINMENT DATE: 1987,
GEOGRAPHIC COVERAGE: Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties.

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, dichloropentafluoroethane, and chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement			Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	Reg. V 115.191 (8)	Operation*	lb/gal (minus water) 12/31/82	12/31/86	<100 lb/day emissions potential in Harris County <550 lb/day elsewhere	Approval	No test procedures
		Prime application	1.2	1.2			
		Primer surface application	3.0	2.8			
		Topcoat application	5.0	2.8			
		Final repair application	6.5	4.8			
		*Includes application, flashoff, and oven areas					
Surface Coating Cans	Reg. V 115.191 (7)	Operation	lb/gal (minus water) ≤12/31/82	>12/31/82	<100 lb/day emissions potential in Harris County <550 lb/day elsewhere	Approval	No test procedures
		Sheet basecoat & overvarnish	4.0	2.8			
		Two-piece can exterior	2.8	2.8			
		Two and three piece can interior body spray, two-piece can exterior end	4.2	4.2			
		Three-piece can side-seam spray	5.5	5.5			
		End sealing compound	4.2	3.7			

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	Reg. V 115.191(3)	2.6 lb/gal (minus water from prime and topcoat, or single coat.	<100 lb/day emissions potential in Harris County <550 lb/day everywhere else	Approval	No test procedures
Surface Coating Paper	Reg. V 115.191(4)	2.9 lb/gal (minus water) from paper (or specified tapes or films) coating.	<100 lb/day emissions potential in Harris County <550 lb/day everywhere else Web coating (printing) if coating not distributed uniformly - includes machines with both printing & coating.	Approval	No test procedures
Surface Coating Fabrics	Reg. V 115.191(5) & (6)	2.9 lb/gal (minus water) from coating of fabric 3.8 lb/gal (minus water) from coating of vinyl fabrics or sheets	Same as Surface Coating Paper	Approval	No test procedures
Surface Coating Metal Furniture	Reg. V 115.191(2)	3.0 lb/gal of coating (minus water) from prime and topcoat, or single coat	<100 lb/day emissions potential in Harris County <550 lb/day everywhere else	Approval	No test procedures

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Large Appliances	Reg. V 115.191(1)	2.8 lb/day of coating (minus water) from application, flashoff, and oven areas.	<100 lb/day emissions potential in Harris County <550 lb/day everywhere else	Approval	No test procedures
Surface Coating Insulation of Magnet Wire	-	No regulation		Approval	State has certified that no facilities are known to exist in the non-attainment areas.
Petroleum Liquids in Fixed Roof Tanks	Reg. V 115.101	VOC other than crude oil and condensate VP. 1.5 psia - 11 psia >1000 gal - submerged fill or vapor recovery >25,000 gal - internal or external floating roof or vapor recovery ≥42,000 gal - internal floating roof or external floating roof with primary and secondary seals or vapor recovery VP.11 psia or more >1000 gal - submerged fill or vapor recovery >25,000 gal - submerged fill and vapor recovery For Crude Oil and condensate require same - sizes are >1000 gal and >42,000 gal.	Crude oil & condensate prior to lease custody transfer if tank <210,000 gals. Tanks <25,000 gals at motor vehicle fuel dispensing stations	Approval	Includes "Floating Roof Tank Requirements" for operation and maintenance. Does not apply to crude oil and condensate storage containers.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks (Cont'd)	115.11 115.12	In Aransas, Bexar, Calhoun Hardin, Matagorda, Montgomery, San Patrico & Travis Counties: >V.P. 1.5 psia and <11 psia >25,000 gal - pressure tank internal or external floating roof with closure seal or vapor recovery system >1000 gal - submerged fill, pressure tank, or vapor recovery V.P. >11 psia >25,000 gal - submerged fill pipe and vapor recovery system	Crude oil & condensate storage containers		
Bulk Gasoline Plants	Reg. V 115.121	Applies only within Harris County - For loading storage tanks no leaks, vapor return to truck max. emissions - 1.2 lb/1000 gal gasoline transferred - For loading trucks no leaks - submerged fill pipe if truck top loaded Vapor return line max. emissions - 1.2 lb/1000 gal gasoline transferred	Bulk plants with throughput <4000 gal/day averaged over any consecutive 30-day period are exempt from vapor return when loading trucks	Approval	
Gasoline Loading Terminals	Reg. V 115.21 115.111-.113	1) Limits emissions to 0.67 lb VOC per 1000 gals gasoline transferred (80 mg/l) and 0.33 lb VOC per 1000 gal in Harris County 2) Vapor recovery system	Crude oil & condensate loading ships & barges loading Facilities handling only LPG	Approval	EPA promulgation remains in effect because compliance dates are more strict.

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminal (Cont'd)	115.21	3) Requires tight connections & other operational controls			115.21 applies to part (3) in Aransas, Bekar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio & Travis Counties
	115.111	Applies to >20,000 gals throughput per day for true vapor pressure >1.5 psia under actual conditions			
Service Stations Stage I	Reg. V 115.131-.135	>1000 gals - submerged fill & vapor recovery; max. emissions - 1.2 lb/1000 gal gasoline transferred Specifications for "Approved Vapor Balance System" - leak tight	1. Fueling farm equip. 2. Tanks with internal or external floating roofs or equivalent 3. <2000 gals installed before 12/10/76 4. If facility has throughput <120,000 gal/yr	Approval	
Miscellaneous Refinery Sources	Reg. V 115.141	VOC - H_2O separators where VOC has true vapor pressure $\geq$0.5 psia - Totally enclosed/vapor tight or - Floating roof or internal floating cover	1. <200 gal/day of VOC 2. Used exclusively for crude oil or condensate	Approval	
	115.31	In Aransas, Bexar, Calhoun Hardin, Matagorda, Montgomery, San Patricio and Travis County VOC - H_2O separators where VOC has Vp $\geq$1.5 psia - totally enclosed, vapor tight, or - vapor recovery system - floating roof or internal floating cover	<200 gal/day Used exclusively for crude oil or condensate		

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources (Cont'd)	115.151	Process Unit, Turnaround - Recover pumpable or drainable liquid - Reduce vessel gas pressure to 5 psia or less before venting	None	Approval	
	115.152	Vacuum-Producing Systems - Vent steam ejector or mechanical vacuum pump to flare or incinerator @ 1300°F - Cover hotwells, use contact condenser, vent to flare or incinerator @ 1300°F	<100 pounds/day of VOC emitted.	Approval	
Solvent Metal Cleaning	Reg. V 115.172	Cold Solvent Cleaning - Cover, drainage, operating instructions -Solvent VP. >0.6 psia at 100°F - Operating & disposal parameters Open Top Vapor Degreasing - Cover that does not disturb vapor zone Condensor flow switch and thermostat, spray safety switch - Permanent operating instructions - Extensive operation control and procedures Conveyorized Degreasing Refrigerated chiller or carbon adsorption system	<550 lb VOC/day facility-wide emission potential In Harris County: <3 lb VOC/day facility-wide emission potential (uncontrolled) Open top vapor degreaser with an open area <10ft^2	Approval	

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (Cont'd)		Exhaust ventilation - ≤65 cfm/ft^2 of opening - 11 ft/min line speed max. - Extensive Operational control and procedures - leaks shall be repaired immediately - Freeboard ratio ≥0.7; or - A water cover	Conveyorized Degreasing with <20 ft^2 of air/vapor interface		
Cutback Asphalt	Reg. V 115.171	Should not be more than 8 percent of total asphalt used over a 2 year period by State, county, or municipal agency who uses or specifies the aspnalt.	±5%	Approval	EPA commented that regulation must apply to non-attainment counties whose county-wide use results in 100 TPY or greater emissions
Refinery Leaks	115.251	VOC leaks >10,000 ppm Leaks must be repaired within 15 days of discovery or until the next scheduled shutdown if necessary. These leaks must be tagged. No valves installed or operated at pipe or line end unless sealed. Signs required for gaseous VOC pipeline valves and pressure release valves.	Valves with nominal size <2" provided allowable Emissions will not exceed <5.0% allowable emissions	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	115.191(9)	Process — lbs per gal of coating (minus water): Clear Coat — 4.3 Air or forced air-dried items (not oven dried) — 3.5 Outdoor or harsh exposure or extreme performance characteristics — 3.5 All other applications — 3.0	100 TPY VOC emissions except in Harris County In Harris County: <18TPY - exterior of airplanes - automobile refinishing - customized auto and truck top coating (<35 vehicles/day) - exterior of marine vessels	Approval	If more than one emission limitation applies, then the least stringent emission limitation shall be applied.
Surface Coating of Flatwood Paneling	115.191(10)	Process — lbs per 1000 sq. ft. of coated surface: Printed interior wall panels made of hardwood plywood and thin particleboard — 6.0 Natural finish hardwood plywood panels — 12.0 Class II finishes for hardboard paneling — 10.0	Emission cut-offs for exemptions same as Misc. Metal Parts - manufacturing of exterior siding - tileboard - particle board used as a furniture component	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	115.191(9)	Process — lbs per gal of coating (minus water) Clear Coat — 4.3 Air or forced air-dried items (not oven dried) — 3.5 Outdoor or harsh exposure or extreme performance characteristics — 3.5 All other applications — 3.0	100 TPY VOC emissions except in Harris County In Harris County: <18TPY - exterior of airplanes - automobile refinishing - customized auto and truck top coating (<35 vehicles/day) - exterior of marine vessels	Approval	If more than one emission limitation applies, then the least stringent emission limitation shall be applied.
Surface Coating of Flatwood Paneling	115.191(10)	Process — lbs per 1000 sq. ft. of coated surface Printed interior wall panels made of hardwood plywood and thin particleboard — 6.0 Natural finish hardwood plywood panels — 12.0 Class II finishes for hardboard paneling — 10.0	Emission cut-offs for exemptions same as Misc. Metal Parts - manufacturing of exterior siding - tileboard - particle board used as a furniture component	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	115.231	All facilities must have the following controls - 1) reactors, distillation units, crystallizers, centrifuges, vacuum dryers - Emission of VOC controlled by surface condensors with outlet gas temp.≤: When VOC Vapor Pressure At 68°F (20°C) Exceeds — Outlet Gas Maximum Temperature 5.8 psia (40 kPa) — -13°F (-25°C) 2.9 psia (20 kPa) — 5°F (-15°C) 1.5 psia (10 kPa) — 32°F (0°C) 1.0 psia (7 kPa) — 50°F (10°C) 0.5 psia (3.5 kPa) — 77°F (25°C) 1) Equivalent emission controls must reduce VOC emissions greater than reduction requirements above. 2) Air dryers and exhaust systems, VOC emissions reduced by 90% of the uncontrolled emissions or to 33/lbs day, whichever is less stringent. 3) Loading facilities - railcar or truck delivers to storage tank with capacities >2000 gal storing VOC with vapor pressure >4.1 psia must reduce uncontrolled emissions using a vapor balance system or equivalent control.	Any uncontrolled facility which emits a combined weight of VOC <550 lbs/day in Bexar, Brazoria, Dallas, El Paso, Galveston, Gregg, Jefferson, Nueces, Orange, Tarrant or Victoria Counties. In Harris County: any uncontrolled facility which emits a combined weight of VOC <15 lbs/day	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Cont'd)		4) Tanks - all in-process tanks containing VOCs shall be kept covered - All VOC storage tanks with vapor pressures >1.5 psia at 68°F require vacuum conservation vents or a more effective control system. 5) Centrifuges and filters which process VOC liquids with vapor pressure ≥0.5 psia at 68°C must be enclosed. 6) Liquids leaks containing VOCs must be repaired 1st time equipment is off-line long enough to complete repair.	When production, sampling maintenance, or inspection procedures require operator access.		
Rubber Tire Manufacture	----	No regulation			
Graphic Arts	115.201	Volatile fraction of ink contains ≤25% by volume of organic compound solvent and ≥75% by volume of water Ink, less water contains 60% by volume nonvolatile material A carbon adsorption or incineration system is required to be in operation reducing VOC emissions by 90% weight A capture system with an overall reduction of at least:	Uncontrolled facility which emits a combined weight of VOC <100 tons/yr	Approval	

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (Cont'd)	115.201	- 75% - publication rotogravure - 65% - packaging rotogravure - 60% - flexographic printing			
Petroleum Liquid Storage, Floating Roof Tank	115.102	Subject to provision of § 115.101: All openings except automatic bleeder vents and rim space vents must provide a projection below liquid surface if not equipped with a cover, seal, or lid in a closed position except when in use Seals must have no visible openings Rim-mounted secondary seals shall Gaps >1/8" shall accumulate to <1.0 in^2/ft of tank diameter Emergency roof drain provided.		Approval	
Drycleaning-Perchloroethylene	115.221	Carbon adsorpion or equivalent so that emissions <100 ppm emissions before dilution Weekly visual inspection Filter residue ≤25% weight VOC VOC from all solvent stills ≤60% by weight of wet waste material All filtration cartridges must be drained for ≥24 hrs before without emitting VOCS removal and dried when possible without emitting VOCs.	Coin-operated facilities Through written application to exec. dir. of Air Control Board: 1) Facilities with inadequate space for an absorber 2) Facilities with insufficient steam capacity to desorb adsorbers 3) Uncontrolled facility which emits a combined weight of VOC <550 lbs/day (except Harris County - no exemption cut-off)	Approval	

STATE: TEXAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	115.261	In Harris County: A gasoline tank-truck tank must pass 1 leak-tight test/yr and display certification with date and i.d. number.		Approval	

REGION VII

Kansas

Missouri (Kansas City Metropolitan Area)

Missouri (St. Louis Metropolitan Area)

NOTE: The entire States of Iowa and Nebraska have been classified as attainment areas for ozone.

Part 3. Processing Operation Emissions

28-19-23 Hydrocarbon Emissions - Stationary Sources

Part 4. Volatile Organic Compound Emissions

28-19-61 Definition
28-19-62 Testing procedures
28-19-63 Automobile and light duty truck surface coating
28-19-64 Bulk gasoline terminals
28-19-65 Bulk liquid storage tanks
28-19-66 Petroleum liquid storage in external floating roof tanks
28-19-67 Petroleum refineries
28-19-68 Leaks from petroleum refinery equipment
28-19-69 Cutback asphalt
28-19-70 Leaks from gasoline delivery vessels and vapor collection systems

STATE: KANSAS
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Douglas, Johnsen, and Wyandotte Counties

GENERAL EXEMPTIONS: Methane, ethane, methylene chloride, methyl chloroform, and trichlorotrifluoroethane

Category	Reg. No.	State Limit or Requirement	lb/gal (minus water)	Compliance Date	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	28-19-63				Coating lines using approved alternative compliance methods. Sources having a potential contaminant emission rate <100 TPY.	Approval	Applies to application areas, flash off areas, and ovens used in coating areas.
		Body primer coat	1.2	12/31/81			
		Body primer-surfacer coat	3.0	12/31/82			
			2.8	12/31/87			
		Body top coat	5.8	7/01/80			
			5.0	12/31/81			
			2.8	12/31/87			
		Body final repair coat	6.5	7/01/80			
			4.8	12/31/87			
		Miscellaneous metal	3.5	7/01/82			
Surface Coating Cans							
Surface Coating Metal Coils							
Surface Coating Paper and Fabrics							
Surface Coating Metal Furniture		No regulations				Approval	The State has certified that no facilities of >100 TPY are known to exist in the nonattainment area.
Surface Coating Large Appliances							
Surface Coating of Insulation of Magnet Wire							
Bulk Gasoline Plants							

1986

STATE: KANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations-Stage I Solvent Metal Cleaning		No regulations		Approval	The State has certified that no facilities >100 TPY are known to exist in the nonattainment area.
Petroleum Liquids in Fixed Roof Tanks	28-19-65	Floating roof or vapor control system designed to reduce emissions to 7 lbs VOC/1000 cubic feet of vented gas	Tanks ≤40,000 gallons. Liquids with a true vapor pressure ≤1.5 psia.	Approval	
Bulk Gasoline Loading Terminals	28-19-66	Vapor control system which does not allow >0.67 lb/1000 gal of gasoline loaded	Sources having potential contaminant emission rate <100 TPY of VOC	Approval	
Miscellaneous Refinery Sources	28-19-67	Vacuum producing system - 1) piping vapors to firebox or incinerator 2) compressing vapors and adding to refinery fuel gas 3) other equipment of equal efficiency Wastewater separators - 1) covers and openings on covers are provided with seals Process unit turnarounds - 1) submit procedures for minimization of VOC emissions during process unit turnaround	Sources having potential contaminant emission rate ≤100 TPY of VOC	Approval	

STATE: KANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	28-19-69	Use prohibited after 12/31/82 without approval of the department	Emulsified asphalt as a substitute. Long-life stockpile storage, Use from 10/1 to 4/1. Penetrating prime coat.	Approval	
Petroleum Liquid Storage, Floating Roof Tank	28-19-66	Continuous, rim-mounted secondary seal Seal closure devices - no holes, tears, openings - uniform and intact seal - gaps $\geq$1/8 inch accumulated to <1.0 in^2/ft	Tanks storing pet: liquid <40,000 gallons Tanks storing crude oil <10,000 gallons	Approval	
Refinery Leaks	28-19-68	Leak must be repaired in 15 days or be reported Monitoring - weekly, quarterly, annually Other operational requirements	VOC Concentration <10,000 ppm	Approval	
Gasoline Tank Trucks	28-19-70	Concentration of emissions to atmosphere <100% of lower explosive unit of propane when measured 2.5 cm from source Guidelines for design and operation of vapor processing equipment		Approval	

STATE: KANSAS

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts					
Surface Coating Flatwood Paneling					
Pharmaceutical Manufacture		No regulations			
Rubber Tire Manufacture					
Graphic Arts					
Drycleaning - Perchloroethylene					

484

Chapter 2. Air Quality Standards and Air Pollution Control Regulations for the Kansas City Metropolitan Area

10 CSR 10-2.210	Control of emissions from solvent metal cleaning
10 CSR 10-2.220	Liquified cutback asphalt paving restricted
10 CSR 10-2.230	Control of emissions from industrial surface coating operations
10 CSR 10-2.240	Restriction of emissions of volatile organic compounds from petroleum refinery sources
10 CSR 10-2.250	Control of volatile leaks from petroleum refinery equipment
10 CSR 10-2.260	Control of petroleum liquid storage, loading, and transfer
10 CSR 10-2.280	Control of emissions from perchloroethylene dry cleaning installations
10 CSR 10-2-290	Control of emissions from rotogravure and flexographic printing facilities

Chapter 5. Air Quality Standards and Air Pollution Control Regulations for the St. Louis Metropolitan Area

10 CSR 10-5.220	Control of petroleum liquid storage, loading, and transfer
10 CSR 10-5.300	Control of emissions from solvent metal cleaning
10 CSR 10-5.310	Liquified cutback asphalt paving restricted
10 CSR 10-5.320	Control of emissions from perchloroethylene dry cleaning installations
10 CSR 10-5.330	Control of emissions from industrial surface coating operations
10 CSR 10-5.340	Control of emissions from rotogravure and flexographic printing facilities
10 CSR 10-5.350	Control of emissions from manufacture of synthesized pharmaceutical products
10 CSR 10-5.360	Control of emissions from polyethylene bag sealing operations
10 CSR 10-5.370	Control of emissions from the application of deadeners and adhesives
10 CSR 10-5.390	Control of emissions from manufacture of paints, varnishes, lacquers, enamels, and other allied surface coating products

STATE: MISSOURI (Kansas City Area)
ATTAINMENT DATE: 1982
GEOGRAPHIC COVERAGE: Clay, Jackson, Platte Counties

GENERAL EXEMPTIONS: Methyl chloroform, methylene chloride, trichlorofluoromethane, trichlorotrifluoroethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, dichlorotetrafluoroethane, and chloropentafluoroethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	10 CSR 2.230	See Note 1	Installations which emit <100 TYP VOC.	Approval	
Surface Coating Cans	10 CSR 2.230	lb VOC/gal / Dates of Two piece ext. sheet basecoat: 4.0 / 12/31/82; 2.8 / 12/31/85 Two & three piece interior body spray: 4.2 / 12/31/82 Two piece end exterior: 4.2 / 12/31/82 Three piece side seam: 5.5 / 12/31/82 End seal compound: 4.2 / 12/31/82; 3.7 / 12/31/85	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Metal Coils	10 CSR 2.230	2.6 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Auto & Light Duty Truck Surface Coating	Approval	

STATE: MISSOURI (Kansas City Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Paper and Fabrics	10 CSR 2.230	2.9 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Installations which emit <100 TPY VOC.	Approval	
Surface Coating Metal Furniture	10 CSR 2.230	3.0 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Surface Coating Large Appliances	10 CSR 2.230	Topcoat - 2.8 lb VOC/gal coating (excluding water) Compliance date: 12/31/81 Final repairs - 6.5 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Surface Coating of Insulation of Magnet Wire	10 CSR 2.230	1.7 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Petroleum Liquids in Fixed Roof Tanks	10 CSR 10-2.260(2)	Vapor pressure >1.5 psia at 70°F must have pressure tank sufficient to prevent gas loss to atmosphere, floating roof or pontoon or double deck type, internal floating cover and seals or vapor recovery system Vapor pressure 11.1 psia at 70°F must have pressure tank sufficient to prevent gas loss to atmoshpere	≤40,000 gallons petroleum or condensate stored, processed, or treated at a drilling and production facility prior to custody transfer	Approval	
Bulk Gasoline Plants	10 CSR 10-2.260 (3)(c)	Submerged fill loading	See Note 2	Approval	

0871

STATE: MISSOURI (Kansas City Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	10 CSR 10-2.260(3)	Must have vapor recovery system or equivalent; during loading displaced vapors and air must be vented to vapors recovery system; vapor disposal portion of vapor recovery system shall consist of an adsorber system, condensation system, or equivalent vapor disposal system which limits discharge of hydrocarbons to 0.30 grams/gal of gasoline loaded, or vapor handling system that directs vapor to a fuel gas system		Approval	
Service Stations Stage I	10 CSR 10-2.260(4)	- 250-2000 gallon storage tanks have submerged fill pipe - >2000 gallon storage tank must have submerged fill pipe and vapor recovery or equivalent; vapor recovery must be 90% efficient.	<2000 gallon storage tanks used for agriculture; storage tanks of <2000 gal. installed prior to Sept. 15, 1976; transfer to storage tank equipped with floating roof or equivalent.	Approval	
Miscellaneous Refinery Sources	10 CSR 10-2.240	-Vacuum producing system VOC emissions from condensers, hot wells, or accumulators reduced by piping to fire box or compressing to refinery fuel gas. -Oil/water separators must have approved covers & seals except when in use, or a container with a floating roof -Procedures to minimize emissions of VOC's during process unit turnarounds is required; no venting until pressure less than 19.7 psia	Wastewater containing <200 gal/day of volatile chemicals	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	10 CSR 10-2.210	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG	methyl chloroform, methylene chloride, trichlorotrifluoroethane Conveyorized <21.5 ft^2 air/vapor interface exempted only from major control device as per CTG <100 tons/yr of VOC	Approval	Deviations from RACT considered to not significantly affect the allowable VOC regulations from OTVD
Cutback Asphalt	10 CSR 10.220	Liquified cutback asphalt prohibited from May through September	-used for filling potholes or emergencies -used solely as an asphalt prime coat or an asphalt seal coat on absorbent surfaces	Approval	
Refinery Leaks	10 CSR 10-2.250	Specified mandatory monitoring systems 15 days to repair leak Report leaks which take longer than 6 months to repair	<1000 ppm at 5 cm distance	Approval	No monitoring required in area solely for petroleum product storage
Surface Coating of Miscellaneous Metal Parts	10 CSR 10-2.230	Parts — lb VOC/gal (minus water) Extreme performance; Air-dried — 3.5 All Other Coatings — 3.0 Heavy Machinery — 3.5 Clear Coat — 4.3 Compliance date for all - 12/31/82	Same as Auto Light-Duty Truck Surface Coating	Approval	

STATE: MISSOURI (Kansas City Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Factory Surface Coating Flatwood Paneling Pharmaceutical Manufacture Rubber Tire Manufacture		No regulations			
Graphic Arts	10 CSR 10-2.290	Flexography: - ≥60% efficient control Method Rotogravure: - Printing - ≥75% efficient control Other - control method so only ≥65% of VOC are emitted Both - if low solvent technology: . volatile portion of ink contains <25% VOC . ink ≥60% nonvolatile material	<100 TPY of VOC	Approval	
Petroleum Liquid Storage, Floating Roof Tank	10 CSR 10-2.260	In addition to requirements for Petroleum Liquids in Fixed Roof Tanks, . Rim-mounted secondary seal, or . Device which controls VOC emissions seal required in part (2)(A)1(A)(1) . No openings in seals unless closed lids . Seals intact and uniform . Gaps in seals <.32 cm		Approval	
Drycleaning - Perchloroethylene	10 CSR 10-2.250	. Control device so solvent conc. <100 ppmv before dilution . No liquid leakage	<100 TPY of VOC	Approval	

STATE: MISSOURI (Kansas City Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning - Perchloroethylene (Cont'd)	10 CSR 10-2.250	. <25 kg solvent/100 kg wet waste for diatomaceus earth filters . <60 kg solvent/100 kg wet waste for all solvent stills . Filtration cartridges drained for 24 hrs. before discarding			
Gasoline Tank Trucks	10 CSR 10-2.260	Vessel must: . Sustain a pressure change of <750 pascals in 5 min. when pressurized to 4,500 pascals or evacuated to 1500 pascals . Be repaired within 15 days if these standards are not met.		Approval	

291

NOTES:
1

	Emission Limit lb VOC/gal coating (minus water)	Dates of Compliance
Auto & Light Duty Truck SC		
Ford Motor Company		
prime		
with electrocoat	1.2	12/31/82
without electrocoat (spray)	3.2	
topcoat (truck)	3.6	12/31/83
final repair (truck)	4.8	12/31/83
final repair (passenger)	4.8	11/31/86
topcoat (passenger)	3.6	12/31/86
		12/31/86
General Motors Cars		
Cathodic electrocoat	1.2	
prime surfacer	3.0	12/31/82
	2.8	12/31/80
topcoat	5.8	12/31/87
	5.0	11/31/79
	2.8	12/31/81
final repair	6.5	12/31/87
	4.8	07/01/79
		12/31/87

2. Rule 10 CSR 10-2.260(3) (c) exempts gasoline loading facilities with average monthly throughput of ≤600,000 gallons, provided that the facility loads gasoline by submerged filling. A facility with an average monthly rate of ≤600,000 gallons is equivalent to a facility with an average daily rate of ≤20,000 gallons which is the CTG definition of a bulk plant. Thus, bulk plants with submerged fill loading are exempted from further controls.

STATE: MISSOURI (St. Louis Area)
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Franklin, Jefferson, St. Charles, and St. Louis Counties and City of St. Louis

GENERAL EXEMPTIONS: Methyl chloroform, methylene chloride, trichlorotrifluoroethane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, dichlorotetrafluoroethane, and chloropentafluoroethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	10 CSR 10-5.330	See Note 1	Installations which emit <50 TYP VOC	Approval	
Surface Coating Cans	10 CSR 10-5.330	lbs VOC/gal minus water / Dates of Compliance: Two piece ext. sheet basecoat: 4.0 — 12/31/82 coat: 2.8 — 12/31/85 Two & three piece interior body spray: 4.2 — 12/31/82 Two piece end exterior: 4.2 — 12/31/82 Three piece side seam: 5.5 — 12/31/82 End seal compound: 4.2 — 12/31/82 3.7 — 12/31/85	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Metal Coils	10 CSR 10-5.330	2.6 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Auto & Light Duty Truck Surface Coating	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Paper and Fabrics	10 CSR 10-5.330	2.9 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Installations which emit <50 TPY VOC	Approval	
Surface Coating Metal Furniture	10 CSR 10-5.330	3.0 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Surface Coating Large Appliances	10 CSR 10-5.330	Topcoat - 2.8 lb VOC/gal coating (excluding water) Compliance date: 12/31/81 Final repairs - 6.5 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Surface Coating of Insulation of Magnet Wire	10 CSR 10-5.330	1.7 lb VOC/gal coating (excluding water) Compliance date: 12/31/81	Same as Surface Coating Paper and Fabrics	Approval	
Petroleum Liquid in Fixed Roof Tanks	10 CRS 10-5.220(2)	Vapor pressure >1.8 psia at 70°F must have pressure tank sufficient to prevent gas loss to atmosphere, floating roof or pontoon or double deck type, internal floating cover and seals o vapor recovery system Vapor pressure >11.1 psia at 70°F must have pressure tank sufficient to prevent gas loss to atmosphere	≤40,000 gallons - petroleum or condensate stored, processed, or treated at a drilling and production facility prior to custody transfer	Approval	

STATE: MISSOURI (St. Louis Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	10 CSR 10-5.220 (3)	Submerged fill loading Requirements for vapor recovery system	See Note 2	Approval	
Gasoline Loading Terminals	10 CSR 10-5.220(3)	Must have vapor recovery system or equivalent; during loading displace vapors and air must be vented to vapor recovery system; vapor disposal portion of vapor recovery system shall consist of an adsorber system, condensation system, or equivalent vapor disposal system which limits discharge of hydrocarbons to 0.30 grams/gal of gasoline loaded or vapor handling system that directs vapor to a fuel gas system		Approval	
Service Stations Stage I	10 CSR 10-5.220(4)	-250-2000 gallon storage tanks must have submerged fill pipe - >2000 gallon storage tank must have submerged fill pipe and vapor recovery or equivalent; vapor recovery must be 90% efficient.	<2000 gallon storage tanks used for agriculture; storage tank of <2000 gal. installed prior to Sept. 15, 1976; transfer to storage tank equipped with floating roof or equivalent.	Approval	
Miscellaneous Refinery Sources		No regulation		Approval	The State of Missouri has certified that there are no refineries in St. Louis

895

STATE: MISSOURI (St. Louis Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	10 CSR 10-5.300	Cold cleaners - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG	Conveyorized <21.5 ft^2 air/vapor interface exempted only from major control device as per CTG	Approval	Deviations from RACT considered to not significantly affect the allowable VOC regulations from OTVD
Cutback Aspahalt	10 CSR 10-5.310	Liquified cutback asphalt prohibited from May to September	- used for filling pot holes or emergencies - used solely as an asphalt prime coat or an asphalt seal coat on absorbent surfaces	Approval	
Refinery Leaks		No regulations		Approval	The State of Missouri has certified that there are no refineries in St. Louis
Surface Coating of Miscellaneous Metal Parts	10 CSR 10-5.330	Emissions Limits Surface Coating Process — lb/gal coaking (minus water) — Dates of Compliance Extreme Performance & Air Dried Coating — 3.5 — 12/31/82 — Installations which emit <10 TPY VOC All Other Coatings — 3.0 — 12/31/82 Aerospace Assembly Primer — 6.0 — 12/31/82 Topcoat — 5.5 — 12/31/82 5.0 — 12/31/85 Maskant — 3.0 — 12/31/82 1.0 — 12/31/85		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts (Cont'd.)	10 CSR 10-5.330	Emissons Limit Surface Coating Process — lb/gal coaking (minus water) — Dates of Compliance Railroad Cars, Farm Implements and Mach. — 3.5 — 12/31/82 Heavy Duty Trucks Other Metal Parts Clear Coat — 4.3 — 12/31/82			
Surface Coating of Flatwood Paneling		No regulations			
Pharmaceutical Manufacture	10 CSR 10-5.350	Temperature regulations at various vapor pressures Emissions — Reduce VOC Emissions 150 kg/day — to <90% <150 kg/day — to 15 kg/day 90% efficient vapor recovery system	<15 lb/day VOC research facilities, pilot plant operations, laboratories unless . emission <363 kg in any month . operation is integral in production process 7,500 liters with 4.1 psi at 20°C	Approval	
Rubber Tire Manufacture		No regulations			
Graphic Arts	10 CSR 10-5.340	Emission Limits: Flexography - no <60% efficient control Rotogravure - Printing - no <75% efficient control; Other - no <65% efficient control Both-if low solvent technology: . Volatile portion of ink <25% VOC . Ink ≥60% nonvolatile material	<100 TPY VOC	Approval	

STATE: MISSOURI (St. Louis Area)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage, Floating Roof Tank	10 CSR 5.220	Additional requirements . rim-mounted secondary seal . device which controls VOC emissions with required effectiveness - no holes, openings - seals, intact and uniform - gaps in seals <.32 cm . Tank gauging and sampling devices must be gas-tight	Storage vessels <27.6 Pa at 70°	Approval	
Drycleaning-Perchloroethylene	10 CSR 10-5.320	. Control exhaust such that max. solvent conc. <100 ppmv . No liquid leakage . <25 kg solvent/100 kg wet waste from diatomaceous earch filters . <60 kg solvent/100 kg wet waste from all solvent stills Filtration cartridges drained for 24 hours. before discarded	Installations where <40,000 lbs of clothing cleaned/year	Approval	
Gasoline Tank Trucks	10 CSR 5.220(5)	. Pressure change <750 pascals in 5 min. when pressurized to 4,500 pascals or evacuated to 1,500 pascals . Repaired within 15 days if above requirement not met		Approval	
Other Polyethylene Bag Sealing Operation	10 CSR 10-5.360	Control method of >65% efficiency Guidelines for monitoring and record-keeping	<250 kg/day or <100 TPY VOC	Approval	

STATE: MISSOURI (St. Louis area)

NOTES:

1.

	Emission Limit lb. VOC/gal. coating (minus water)	Dates of Compliance
Auto & Light Duty Truck SC		
Chrysler Corporation Car		
prime-electrocoat	1.2	12/31/85
spray prime-auto	4.2	12/31/79
	3.4	12/31/83
spray prime truck	2.8	12/31/85
topcoat	3.9	12/31/79
	3.0	12/31/84
	2.5	12/31/85
final repair	4.8	12/31/81
Chrysler truck		
prime electrocoat	1.2	12/31/84
spray prime	4.4	12/31/79
	3.4	12/31/82
	2.8	12/31/84
topcoat	3.9	12/31/79
	2.5	12/31/84
final repair	4.8	12/31/81
Ford Motor Company		
prime with electrocoat	1.2	12/31/82
spray prime w/o electrocoat	3.2	12/31/83
topcoat	3.6	12/31/84
final repair	4.8	12/31/84
General Motors Car		
Cathodic electrocoat	1.2	12/31/82
prime surfacer	3.0	12/31/82
	2.8	12/31/84

STATE: MISSOURI (St. Louis area)

NOTES: 1.
(Cont'd.)

	Emission Limit lb. VOC/gal. coating (minus water)	Dates of Compliance
topcoat	5.8	12/31/79
	5.0	12/31/81
	2.8	12/31/84
final repair	6.5	07/01/79
	4.8	12/31/84
General Motors Truck		
Prime-Elpo	1.2	12/31/82
Prime-surfacer	2.8	12/31/85
topcoat	3.6	12/31/81
	2.8	12/31/85
final repair	4.8	12/31/79
General Motors Corvette		
prime	3.6	12/31/84
topcoat	2.8	12/31/84
final repair	4.8	12/31/84

2. Rule 10 CSR-10-5.220 (3) (c) exempts gasoline loading facilities with average monthly throughputs of $\leq$60,0000 gallons, provided that the facility loads gasoline by submerged filling. A facility with an average monthly rate of $\leq$60,000 gallons is equivalent to a facility with an average daily rate of $\geq$ 20,000 gallons which is the CTG definition of a bulk plant. Thus, bulk plants with submerged fill loading are exempted from further controls.

REGION VIII

Colorado

Utah

NOTE: The entire States of Montana, North Dakota, South Dakota and Wyoming have been classified as attainment areas for ozone.

COLORADO

Regulation No. 7. Regulation to Control Emissions of Volatile Organic Compounds

I. Applicability

II. General Provisions

III. General Requirements for Storage and Transfer of Volatile Organic Compounds

IV. Storage of Highly Volatile Organic Compounds

V. Disposal of Volatile Organic Compounds

VI. Storage and Transfer of Petroleum Distillate

- A. General requirements
- B. Storage of petroleum distillates
- C. Transfer of petroleum distillate
- D. Control of volatile organic compound leaks from gasoline transport trucks

VII. Crude Oil

VIII. Petroleum Processing and Refining

- A. Separation of water from petroleum and petroleum products
- B. Emissions from petroleum refineries
- C. Petroleum refinery equipment leaks

IX. Surface Coating Operations

- A. General provisions
- B. Automobile and light-duty truck assembly plants
- C. Can coating operations
- D. Coil coating operations
- E. Fabric coating operations
- F. Foil coating operations
- G. Large appliance coating operations
- H. Magnet wire coating operations
- I. Metal furniture coating
- J. Paper coating operations
- K. Plastic-film coating
- L. Vinyl coating operations
- M. Manufactured metal parts and metal products

X. Use of Solvents for Degreasing and Cleaning

XI. Use of Cutback Asphalt

XII. Control of VOC Emissions from Dry Cleaning Facilities using Perchloroethylene as a Solvent

XIII. Graphic Arts

XIV. Pharmaceutical Synthesis

XV. Control of Volatile Organic Compound Leaks from Vapor Collection Systems and Vapor Control Systems Located at Gasoline Terminals, Bulk Plants, and Gasoline Dispensing Facilities

STATE: COLORADO
ATTAINMENT DATE: 12/31/87
GEOGRAPHIC COVERAGE: Counties of Boulder, Denver, Jefferson, and Douglas and the Western portions of Adams and Arapahoe Counties

GENERAL EXEMPTIONS: Excluded as VOCs are methane, ethane, 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, trichlorotrifluoroethane, dichlorotetrafluoroethane, and chloropenta fluoroethane.

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Auto & Light-Duty Truck Surface Coating	7.IX.B.2	Emission limitations:	lbs VOC/gallon coating (minus water)		Approval	See Note 1
		Prime application flashoff area, and oven	1.9			
		Topcoat application area and oven	2.0			
		Final repair application, flashoff area and oven	4.8			
Surface Coating Cans	7.IX.C.2	Emission limitations:	(lb VOC/gallon (coating minus water)		Approval	See Note 1
		Sheet basecoat (exterior and interior) and overvarnish	2.8			
		Two-piece can exterior (basecoat and overvarnish	2.8			
		Two and three-piece can interior body spray	4.2			

304

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Surface Coating Cans (Cont'd)	7.IX.C.2	Two-piece can exterior end (spray or roll coat)	4.2			
		Three-piece can sideseam spray	5.5			
		End sealing compound	3.7			
		End sealing compound additional costs	4.2			
Surface Coating Metal Coil	7.IX.D.2	Emission limitations:			Approval	See Note 1
		Any coat	2.6 lbs VOC/ gallon coating minus water			
	7.IX.F.2	Coating line	2.9 lbs VOC/ gallon coating minus water			
Surface Coating Paper	7.IX.J.2	Emission limitations:			Approval	See Note 1
		Coating line	2.9 lbs/VOC gallon coating minus water			
Surface Coating Fabrics	7.IX.E.2	Emission limitations:		Exclude processes normally included under fabric finishing or under fabric impregnation	Approval	See Note 1
		Fabrics coating line	2.9 lbs VOC/gal coating minus water			
	7.IX.L.2	Vinyl coating line	3.8 lbs VOC/gal coating minus water	Excluded are: (1) the coating with adhesive or pressure sensitive coatings (2) vinyl tapes		

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	7.IX.I.2	Emission limitations: All coats — 3.0 lbs VOC/gallon coating minus water	Coating of non-metal components; coating of small strictly decorative, metal components if these parts occupy in total $\leq$ 5 percent of the normally visible metal surface of the finished piece of furniture, and no single piece has a coated surface $\geq$15.5 in ^{2}	Approval	See Note 1
Surface Coating Large Appliances	7.IX.G.2	Emission limitations: Prime, single or top coat application area, flashoff area, and oven — 2.8 lbs VOC/gal coating minus water		Approval	
Surface Coating Insulation of Magnet Wire	7.IX.G.2	Emission limitations: Curing oven(s) coating die(s), equipment-cleaning, and coating reducing — 2.16 lbs. solvent per gallon of coating solids deposited on the wire		Approval	
	7.IX.H.3	Control conditions: coating lines may not use catalytic oxidation as the primary control technique, unless demonstrated that the catalyst can retain 85% efficiency for at least 3,000 hours, if can demonstrate there is a measurable loss of volume of coating-solids in the curing process without significant loss of mass, then may use the equivalent mass/mass ratio for that particular operation.			

306

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	7VI.B..2.a	(i) Pontoon-type, or double-deck type, floating roof or an internal floating cover equipped with a closure seal or seals with no visible tears, leaks, or warpage; or (ii) Vapor gathering system together with a vapor recovery or disposal system; or (iii) Other approved equipment of equal or greater control efficiency	Storage tanks capacity ≤40,000 petroleum distillates with a vapor pressure ≤0.65 psia at 20°C Following distillates are exempt from provisions: diesel fuels 1-D, 2-D, and 4-D, Fuel oils #1, #2, #3, #4, and #5, and gas turbine fuels 1-GT through 4-GT as defined by the ASTM	Approval	See Note 2
	7VI.B..2.b	Above ground storage tanks used for the storage of petroleum distillate shall have all external surfaces coated with a material which has a reflectivity for solar radiation of 0.7 or more.	Following underground facilities are exempt provisions: underground tanks if annual sum total volume of distillate removed from the tank plus the sum of the volume of distillate added to it ≤ twice the operational volume of the tank (a maximum of one turnover per year is allowed); and subsurface caverns or porous rock reservoirs.	Approval	
Bulk Gasoline Plants	7.VI.C.3	Approved vapor balance system installed on tanks in plants with an average daily throughput ≤20,000 gallons, which is loaded directly into transport trucks.	Average daily throughput >20,000 gallons. Bulk plants serving only storage tanks.	Approval	See Note 2 These bulk plants are regulated under 7.VI.B.3

307

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	7.VI.C.2	Must be equipped with: (i) dry-break loading couplings to prevent loss during uncoupling (ii) a vapor collection and disposal system used when tank trucks are loaded (iii) loading pump shut-offs, set stop meters or comparable equipment to prevent overfilling Provisions made to remove any undeliverered petroleum distillate with closed drainage devices. Final recovery and disposal equipment shall emit no more than 80 mg of VOCs per liter of distillate loaded	Terminals with an average daily throughput ≤20,000 gallons Petroleum distallates with pressures at 20°C <1.5 psia	Approval	See Note 3
Service Stations Stage I	7.VI.B.3	Tanks of a capacity ≤40,000 gallons shall install/operate an approved vapor balance system if the tank capacity ≥550 gallons and was installed after 11/7/73 or has a capacity ≥2,000 gallons and was installed prior to 11/7/73.	Petroleum distillates vapor pressure at 20°C of less than 1.5 psia at 20°C. Tanks with capacity gallons installed 11/7/73. Tanks with capacity <2,000 gallons installed prior to 11/7/73	Approval	
Miscellaneous Refinery Sources	7.VIII.A	Requires one or more of the following vapor loss control systems on waste water separators receiving VOCs with a vapor pressure >1.5 psia at 20°C: (1) a solid cover with all openings sealed, (2) a pontoon-type or double-deck type floating roof, or internal floating cover equipped with closure seals,		Approval	

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources (Cont'd)	7.VIII.A	(3) a vapor recovery system and vapor disposal device,			
	7.VIII.B.1	Process unit turnarounds and equipment blowdown shall be vented through a smokeless flare or other combustion device which assures 90 percent combustion.			
	7.VIII.B.2;3	Process equipment vents, pressure relief valves, and emissions from condensers, hot wells, and accumulators of vacuum-producing equipment shall be vented to a flare or other combustion device			
Solvent Metal Cleaning	7.X.B	Cold cleaners - essentially consistent with CTG	Methylene chloride, 1,1,1-trichloroethane, Freon 113	Approval	
	7.X.C	Non-conveyorized degreasers - essentially consistent with CTG			
	7.X.D	Conveyorized degreasers - essentially consistent with the CTG			

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Cutback Asphalt	7.XI	Prohibits storage or use of cutback asphalt during May through September except if used solely as a penetrating prime coat, or user can demonstrate no emissions of VOCs	Emulsified asphalt with <5 percent of residual asphalt A phase-out option is available that postpones the prohibition until 12/31/82 if use of an emulsified asphalt is phased-in between the effective date of the regulation and 10/1/82, and demonstrates that not less than 30 percent of the total liquid asphalt gallonage used for seal coating during the phase-in period will be emulsified.	Approval	
Refinery Leaks	7.VIII.C.2	Monitoring program requirements and procedures. Record all leaking components which have a VOC concentration exceeding 1000 ppmv above background expressed as hexane when measured 5 cm. from the source or 10,000 ppmv above background expressed as methane when measured 1 cm. from the source. Repair and retest all leaking components within 15 working days of detection. Testing, recordkeeping, and reporting requirements.		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Miscellaneous Metal Parts	7.IX.M.2	Emission limitations: (i) clear coatings — 4.3 lb VOC/ minus water (ii) extreme performance coatings — 3.5 lb VOC/ gallon coating minus water (iii) air-dried coatings — 3.5 lb VOC/ gallon coating minus water (iv) other coating — 3.0 lb VOC/ gallon coating minus water Emission limitations achieved by: application of low-solvent coating technology; a control and capture system that achieves an overall VOC emission reduction efficiency of at least 60 percent; and approved equivalent means. Testing and monitoring requirements.	Not applicable to surface coating of: autos and light-duty trucks, metal gallon coating cans, metal coils, large appliances, magnet wire, Not applicable to following special-purpose coatings: coating applied in-situ to the exterior of aircraft, aerospace exemptions for high performance coatings on a case-by-case basis; and full exterior repainting of autos and light-duty trucks if fewer than 18 vehicles are painted/day		See Note 1
Surface Coating Flatwood Paneling		No regulation			
Pharmaceutical Manufacture	7.XIV	Surface condensers or equivalent controls shall be used, provided that if condensers are used, condenser outlet gas temperature must not exceed the following values: Vapor pressure at 20°C (psia) / Maximum Temperature (°C) 0 - 0.5 / 35° 0.5 - 1.0 / 25°	Pharmaceutical emitting <6.8 kg/day of VOCs Extraction of organic substances from animal or vegetable material, fermentation and culturing, formula-	Approval	

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
		1.0 - 1.5 0° 2.9 - 5.8 -15° 5.8 - 11.0 -25° Shall reduce VOC emissions from each air dryer and exhaust system: a) by at least 90 percent if emissions 150 kg/day, or b) to ≤15.0 kg/day if emissions <150 kg/day of VOCs Provided a vapor balance system or equivalent control of at least 90 percent effectiveness in reducing emissions from truck or railcar deliveries to storage tanks with a capacity >2,000 gallons that store VOCs with vapor pressures >4.1 psia at 20°C Use pressure/vacuum conservation vents set at >1.5 torr above ambient pressure and the vacuum-relief device set at ≥1.5 torr below ambient pressure on tanks storing VOCs with vapor pressures >1.5 psia at 20°C Enclose all centrifuges, rotary vacuum filters, and all other filters with an exposed liquid surface where VOCs in the liquid exert a total vapor pressure ≥0.5 psia at 20°C Install covers on all in-process tanks ... Shall repair all liquid leaks containing a VOC... Testing and monitoring requirements.	tion and packaging of pharmaceutical or medicinal products		
Rubber Tire Manufacture		No regulations			

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphics Arts	7.XIII	Volatile fraction of ink as applied percent by volume of VOC and ≥75 percent of water Ink contains ≥60 percent by volume of non-volatile material minus water Operates a VOC capture system and at least one of the following: (i) a carbon adsorption systems reduces VOCs from the capture system by at least 90 percent by weight; (ii) an incineration system which oxidizes at least 90 percent of the non-methane VOCs; (iii) an alternative system demonstrated to have at least 90 percent reduction efficiency. Capture system must provide an overall reduction in VOC emissions of at least: 75 percent where a publication rotogravure process is used; or 60 percent where a flexographic printing process is used. Testing and monitoring requirements.	Rotogravure of flexographic printing facilities from which total VOC emissions before control <100 tons/yr in at least one of the following years: 1977, 1978, or 1979	Approval	
Petroleum Liquids in Floating Roof Tanks	7.VI.B.2.C	Roof drains designed to empty directly into the stored product provided with slotted-membrane fabric covers or their equivalent which cover at least 90 percent of the area of the opening. Openings equipped with projections into the tank which remain below the liquid surface at all times, and covers, seals, or lids (except for automatic bleeder vents, rim space vents, and leg sleeves).	Petroleum liquid storage vessels equipped with external floating roofs <40,000 gallons External floating roof tanks which store any material whose true vapor pressure ≤1.3 psia Tanks ≤10,000 barrels, in capacity which store crude oil and condensate	Approval	

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Floating Roof Tanks (Cont'd)	7.VI.B.2.C	Cover, seals, and lids shall be kept kept closed except when is use. Automatic bleeder vents shall be kept closed except when the roof is floated off or landed ... Rim vents set open to manufacturer recommended setting or when the roof is floated off ... Inspection and recordkeeping requirements. Equipped with a continuous secondary dary seal extending from the rim of the floating roof to the tank wall ... or an approved closure or other device which controls with equal or greater effectiveness. Tanks with a vapor-mounted primary seal required to have a secondary seal must have an annual inspection of the total gap area which shall <21.2 cm^2 per meter diameter	prior to custody transfer Following are exempt from both secondary seal and secondary seal inspection requirements: tanks storing petroleum liquids between 1.3-4.0 psia with one of the following primary seals: metallic shoe seal; liquid-mounted, liquid-filled seal, any approved, equivalent devices; and any tank storing waxy, heavy-pour crude oil		
Drycleaning Perchloroethylene	7.XII	Operate equipment and any emission control device such that no vent or exhaust stream emits no more than 100 ppm by volume of perchloroethylene. At no time may the concentration >100 ppm for longer than 5 seconds, nor for an aggregate of more than 15 seconds for the complete drying cycle.	Facility annual consumption <500 gallons of perchloroethylene beginning 1/1/80	Approval	

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning Perchloroethylene (Cont'd)		Operate and maintain dry cleaning equipment such that gaseous perchloroethylene leaks <100 ppm by volume excepting operations where fugitive emissions are drawn through a properly functioning control device. Repair all leaks within two working days. Cook or treat all diatomaceous earth filters such that the filtered-out residue plus the filter media contain ≤25 percent perchloroethylene by weight ... drain all filtration cartridges within the filter housing for at least 24 hours prior to discarding, or use a sealed container designed for filter drying ... distill no more than 60 percent by weight of perchloroethylene remains in the wet waste material in the solvent still so that 1 gallon weighs no more than 11.4 lbs. Store all perchloroethylene and wastes that might contain perchloroethylene in tightly sealed containers ... dispose of perchloroethylene-containing wastes in sealed container or packages Testing and monitoring requirements.			
Gasoline Tank Trucks	7.VI.C.4.a	Rail cars are to be filled only at facilities with: (i) a submerged fill pipe reaching within 6 inches of the bottom of the tank (ii) a vapor collection and/or disposal system (iii) a vapor-tight seal around the tank car hatch and the loading equipment		Approval	

STATE: COLORADO

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks (Cont'd)	7.VI.C.4.b	Trucks serving facilities with vapor recovery equipment shall load only at facilities that can dispose of the collected vapors, and shall be equiped and follow proper practices so that: (i) compatible dry-break loading and unloading are used; (ii) vapor recovery hoses are connected during loading and unloading; (iii) trailers and trucks are operated and maintained to prevent detectable vapor loss; (iv) compartment dome lids are closed and locked during transfers: (v) hoses, coupling, and valves are maintained to prevent dripping, leaking, or other liquid or vapor loss during loading or unloading. Applies to all gasoline transport trucks equipped for vapor collection . . . Trucks cannot be filled with a VOC with a Reid vapor pressure >4 psi unless: (i) truck is tested annually according to referenced procedures; (ii) truck sustains a combined pressure change of no more than 5.6 torr in 5 minute test periods when pressurized to 33.6 torr, then evacuated to a pressure of -11.2 torr; (iii) truck sustains a leak rate $\leq$5.6 torr in 5 minutes when the internal vapor valves are tested Inspection, monitoring, recordkeeping and reporting and certification requirements.			

816

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
General Requirements for Storage and Transfer of VOCs	7.III	All storage tank gauging devices anti-rotation devices, acceses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities . . . and then such use shall be limited to minimize vapor loss		A non-CTG rule	See Note 4
		Except as otherwise provided, all transferred to any tank, container, or vehicle compartment with a capacity >56 gallons shall be transferred using submerged or bottom filling equipment which assures 97 percent submerged filling	Excluding transfer of petroleum distillates		
Surface Coating Plastic-Film	7.IX.K.2	Emission limitations: Coating line — 2.9 lbs VOC/ gallon coating minus water	Excludes coating of and vinyl thin plastic webs or sheets except vinyl tapes and vinyls coated with an adhesive or pressuresensitive coating		
Disposal of VOCs	7.V	No disposal of VOCs by evaporation or spillage if quantity >10 gallons per day in non-attainment areas or >100 gallons per day in attainment areas.		A non-CTG rule	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Storage of Highly Volatile Organic Compounds	7.1V	Highly volatile compounds (e.g., propane or butane) shall be stored in a pressure tank capable of maintaining working pressures sufficient to prevent vapor loss or prevent vapor loss with approved methods/equipment		A non-CTG rule	

1. Surface coatings containing VOC proportions in excess of applicable maximums specified by subsections B through M in Section IX are exempt from the alternative compliance methods provided that the maximum VOC emissions $\leq$11,800 kg/yr nor exceed 45 kg/day, and for sources with more than one coating line, the maximum emissions of VOCs for all lines not meeting specific emission limitations must be $\leq$18,500 kg/yr nor more than 68 kg/day.

2. No person shall build, install, or permit the building or installation of any rotating pump or compressor handling any type of petroleum distillate unless equipped with mechanical seals or other equipment of equal efficiency. If reciprocating-type pumps and compressors are used, shall be equipped with packing glands properly installed, in good working order, and properly maintained so that no emissions occur from the drain recovery systems.

3. Under Regulation 7.XV, all facilities, which must have a vapor collection and/or vapor control system under 7.VI, shall operate the vapor collection system to prevent:
   a) a gauge pressure >33.6 torr and vacuum from exceeding - 11.2 torr at the point where the vapor return line on the truck connects with the vapor collection line of the facility;
   b) a reading $\geq$100 percent of the lower explosive limit at 2.5 cm from a known or potential leak source;
   c) avoidable visible liquid leaks during loading and unloading; and must repair and retest within 15 days any vapor collection or control system that exceeds the pressure limits;

4. Prior to effective date of any specific emissions limitation, sources subject to those limitations shall not emit VOCs from any process or point source >204 kg per hour or >1,361 kg per day. Sources of VOCs for which no specific emission limitations have been set, shall not emit from any process or point source >204 kg per hour or >1,361 kg per day ... provided that no existing source of VOC emissions employing emission controls on or within the 6-month preceding the effective date of the regulation may reduce its level of control of VOC emissions below that level of control actually achieved even though that source may be subject to less stringent control requirements (7.11.D.1.a.,b.,c.)

4.9 Nonattainment Area Requirements - Ozone

4.9.1 Petroleum liquid storage
4.9.2 Petroleum liquid storage/transfer
4.9.3 Control of hydrocarbon emissions from refineries
4.9.4 Degreasing and solvent cleaning operations
4.9.5 Cutback asphalt
4.9.6 Volatile organic compounds used for coating paper, fabric, vinyl, metal furniture, large appliances, magnet wire, flat wood paneling, miscellaneous metal parts and products, and graphic arts.
4.9.7 Synthesized pharmaceutical manufacturing
4.9.8 Perchloroethylene dry cleaning plants
4.9.9 Compliance schedule

STATE: UTAH
ATTAINMENT DATE: 1982, except for Salt Lake and Davis Counties, 12/31/85
GEOGRAPHIC COVERAGE: Salt Lake and Davis Counties

GENERAL EXEMPTIONS: 1,1,1-Trichloroethane, methylene chloride, trichlorofluoromethane, trichlorotrifluoroethane, dichlorodifluoro-, methane, chlorodifluoromethane, trifluoromethane, 1,2-dichloro-1,1,2,2-tetrafluoroethane, methane, ethane, chloropentafluoroethane.

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating Surface Coating Cans Surface Coating Metal Coils		No regulations		Approval	The State has certi- that no sources exist in the nonattainment areas.
Surface Coating Paper	4.9.6.a	Applies to roll, knife rotogravure coaters and drying ovens No emissions of VOCs >0.35 kg per liter of coating, excluding water, delivered Emission limit achieved by use of a low solvent technology coating, or incineration provided that a minimum of 90 percent non-methane VOCs are oxidized, or through carbon adsorption provided that there is a minimum of 90 percent reduction efficiency, or through other approved equivalent methods		Approval	See Note 1

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Fabrics	4.9.6.b	Fabrics: no emissions of VOCs >0.35 kg per liter of coating, excluding water, delivered Vinyl: no emissions of VOCs >0.45 kg per liter of coating, excluding water, delivered Emission limits achievable by use of a low solvent technology coating, or incineration provided that a minimum of 90 percent non-methane VOCs are oxidized, or through carbon adsorption provided there is a minimum of 90 percent reduction efficiency, or through other approved equivalent methods		Approval	
Surface Coating Metal Furniture	4.9.6.c	Applies to the application area(s), flashoff area(s), and oven(s) of coating lines involved in prime and top-coat or single coat operations No emissions of VOCs >0.3 kg per liter of coating, excluding water, delivered Emission limit achievable by application of low solvent technology, or incineration provided a minimum of 90 percent of the non-methane VOCs are oxidized, or through other approved equivalent methods		Approval	

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Large Appliances	4.9.6.d	Applies to the application area(s), flashoff area(s), and oven(s) of coating lines involved in prime, single, or top coating operations No emissions of VOCs >0.34 kg per liter of coating, excluding water, delivered Emission limit achievable by application of low solvent technology, or incineration provided 90 percent of the non-methane VOCs are oxidized, or through other approved equivalent techniques		Approval	
Surface Coating of Insulation of Magnet Wire	4.9.6.e	Applies to ovens No emissions of VOCs >0.20 kg per liter of coating, excluding water, delivered Emission limit achievable by application of low solvent content coating technology, or incineration provided that a minimum of 90 percent of the non-methane VOCs are oxidized, or through other approved equivalent techniques		Approval	

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	4.9.1.a.	Shall be fitted with control equipment which will minimize vapor loss ... Vessels equipped with external floating roofs, shall be fitted with an internal floating roof ... equipped with a closure seal or seal ... or equivalent controls provided design and effectiveness documented and approved ...	Capacity ≤40,000 gallons (150,000 liters) Petroleum liquids with a vapor pressure ≤1.52 psia (10.5 kilo pascals) Vessels erected before 1/1/79	Approval	
	4.9.1.b	No visible holes, tears, or other openings in any seal or seal fabric ... All openings, except stub drains equipped ... with covers, lids, or seals. Inspection requirements.			
Bulk Gasoline Plants	4.9.2.a.	Vapor collection system required ...designed and operated to allow no more than average of 15 cc drainage per disconnect for 5 consecutive disconnects ... with emission limit of 0.64 pounds per 1,000 gallons transferred ...equipped with vapor tight connections.	Daily average throughput of plant ≤3,900 gallons of gasoline provided use bottom or submerged filling or alternative equivalent methods	Approval	
	4.9.2.b	No transfer from any delivery vessel to storage tank >250 gallons in capacity is permitted unless at least 90% of the vapor, by weight, is recovered.	Tanks <2,000 gallons installed before 1/1/79 if equipped with a permanent submerged fill pipe		

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Loading Terminals	4.9.2.a.	Vapor collection system required ...designed and operated to allow no more than average of 15 cc drainage per disconnect for 5 consecutive disconnects ... with emission limit of 0.64 pounds per 1,000 gallons transferred ...equipped with vapor tight connections.	Daily average throughput of plant ≤3,900 gallons of gasoline provided use bottom or submerged filling or alternative equivalent methods	Approval	
	4.9.2.b.	No transfer from any delivery vessel to storage tank ≥250 gallons in capacity is permitted unless at least 90% of the vapor, by weight, is recovered	Transfer of gasoline to containers <550 gallons of use primarily for fueling of implements of husbandary if container equipped with a permanent submerged fill pipe Tanks <2,000 gallons installed before 1/1/79 if equipped with a permanent submerged fill pipe Transfer of gasoline to approved floating roof storage tanks		
Service Stations Stage I	4.9.2.b.	No transfer from any delivery vessel to storage tank ≥250 gallons in capacity is permitted unless at least 90% of the vapor, by weight, is recovered	Tanks <2,000 gallons installed before 1/1/79 if equipped with a permanent submerged fill pipe	Approval	

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	4.9.3.a	Vacuum producing systems: VOC emissions controlled by piping of noncondensable vapors to a firebox or incinerator, or compressing vapors and adding to refinery fuel gas, or other equally effective approved methods		Approval	
	4.9.3.b	Wastewater (Oil/Water) separators: equipped with approved covers and seals on all separators and forebays, lids or seals on all openings in covers, separators, or forebays, or designed that all VOC-contaminated wastewaters are directed into a closed drainage system to the separator			
	4.9.3.c	Process unit turnaround: vent process unit or vessel to a vapor recovery system, flare, or firebox, and limiting VOC emissions from a unit or vessel until its internal pressure is $\leq$19.7 psia, or equally effective approved system			
	4.9.3.d	Catalytic cracking units: flue gas vented to a waste heat boiler, a process header firebox, incinerated, or equally effective approved methods			

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources (continued)	4.9.3.e	Safety pressure relief valves: no valve >1 inch inlet diameter used on any equipment handling organic material >15 psia unless vented to a vapor recovery or disposal system, or protected by ruptured disk, or is maintained by an approved inspection system			
Solvent Metal Cleaning	4.9.4.a	Cold cleaners: similar to CTG control system A		Approval	
	4.9.4.b	Open top vapor degreaser: similar CTG including elements of both control systems A and B and some CTG requirements for cold cleaners	Open top degreasers with an open area <1 m^2 are exempt from requirements for a refrigerated chiller and a carbon adsorption system		
	4.9.4.c	Conveyorized degreasers: similar to CTG including elements of both control system A and B and some CTG requirements for cold cleaners and open top vapor degreasers	Conveyorized degreasers with an air/vapor interface <2.0 m^2		
Cutback Asphalt	4.9.5	Prohibited use from May through September	Use permitted between October and May Long term storage (>1 month) Use solely as pentrating prime coat Demonstrate no VOC emissions under normal use conditions	Approval	

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	4.9.3.f	Any affected installation within a refinery complex found to be leaking shall be repaired within 15 days Leaking installation defined as one with a VOC concentration >10,000 ppm when tested by a VOC detection instrument at the leak source Monitor at least annually with a VOC detection device: all pump seals, pipeline valves in liquid service, process drains Monitor quarterly with a VOC detection device: all compressor seals, pipeline valves and pressure relief valves in gaseous service Monitor visually on a weekly basis: all pump seals Monitor any relief valve within 24 hours after vented, monitor immediately after repair of leaks	Pressure relief valves valves connected to an operating flare header, vapor recovery devices, inaccessible valves storage tank valves, values not externally regulated, refinery equipment components handling only organic liquids with a Reid vapor pessure <78 mm Hg or handling only natural gas, methane or ethane, valves or flares or instrument and/or sample lines with a diameter <1.8 cm.	Approval	

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Miscellaneous Metal Parts	4.9.6.g	Applies to application area(s), flashoff area(s), air and forced air dryer(s), and oven(s) used in surface coating, large farm and small farm machinery, small appliances, commercial machinery, industrial machinery, fabricated metal products, and other industries which coat metal parts and products under SICs 33-39 Max VOC emissions in operations using: Clear coating: >0.52 kg per liter of coating, excluding water, delivered Air or forced air dryers or extreme performance coatings: >0.42 kg per liter of coating, excluding water, delivered All other coatings: >0.36 kg per liter of coating, excluding water, delivered If more than one emission limit appears, least stringent limitation shall apply	Does not apply to auto and light-duty trucks coating; coating of metal rods on coil; coating of airplane exteriors; auto refinishing; coating of marine vessel exteriors; customized top coating of autos and trucks if production <35 vehicles per day; coating of metal cans; and a source whose VOC emissions <10 tons per year	Approval	The State has certified that these exempted surface coating operations do not exist in nonattainment areas

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Miscellaneous Metal Parts (Continued)		Emission limits achievable by application of low solvent technology, incineration system which oxidizes a minimum of 90 percent of the non-methane VOCs, or through other approved equivalent techniques			
Surface Coating Flatwood Panels	4.9.6.f	Applies to the application area(s) application of low solvent technology sealer, groove, coat, primer stain, basecoat, inks, and topcoat operations Interior printed hardwood, plywood, and particle board: no emissions of VOCs >0.29 kg per liter, excluding water, delivered Natural finish hardwood, plywood: no emissions of VOCs >0.40 kg per liter, excluding water, delivered Class II hardwood panel finish: no emissions of VOCs >0.43 kg per liter, excluding water, delivered Emissions limits achievable by application of low solvent technology, application of waterborne coating technology, application of ultraviolet-curable coating technology, or through other approved equivalent techniques	Does not apply to manufacturing of operations involved in board, or particle board used as a furniture component	Approval	

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture	4.9.7.a	Surface condensers or equivalent shall be used to control VOCs from all reactors, distillation operations, crystallizers, centrifuges and vacuum dryers that have the potential to emit ≥6.80 kg/day. If surface condensers are used, the condenser outlet gas temperature must not exceed these values: Temp. (°C) / VOC Vapor Pressure (at 20°C) -25 / 40.0 kPa (5.8 psi) -15 / 20.0 kPa (2.9 psi) 0 / 10.0 kPa (1.5 psi) 10 / 7.0 kPa (1.0 psi) 25 / 3.5 kPa (0.5 psi)		Approval	
	4.9.7.b	VOC emissions from all air dryers and production equipment exhaust systems shall be reduced at least 90 percent if emissions are ≥150 kg/day or to 15 kg/day if emissions are <150 kg/day.			
	4.9.7.c	A vapor balance system or an equivalent that is at least 90 percent effective shall be provided to reduce emissions from truck or railcar deliveries to storage tanks >2,000 gallons that store VOCs with vapor pressures >28.0 kPa (4.1 psi) at 20°C.			

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Pharmaceutical Manufacture (Continued)	4.9.7.d	Pressure vacuum conservation vents set at ± 0.2 kPa or an approved equivalent system shall be installed on all tanks storing VOCs with vapor pressures >10.0 kPa (1.5 psi) at 20°C.			
	4.9.7.e	Enclose all centrifuges, rotary vacuum filters or other filters that process liquids with VOCs with vapor pressures ≥3.50 kPa (0.5 psi) at 20°C.			
	4.9.7.f	All leaks from which a VOC-containing liquid can be observed running or dripping shall be repaired.			
	4.9.7.h	Test procedures and monitoring requirements.			
Graphic Arts	4.9.6.h	Applies to packaging rotogravure, publication rotogravure or flexographic printing operations including specialty printing employing solvents containing ink with potential VOC emissions ≥100 tons per year Can operate a facility only if: Volatile fraction of ink, applied to substrate, is ≤25 percent by volume of organic solvent and ≥75 percent by volume of water,		Approval	

331

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphics Arts (Continued)		Ink as applied to substrate, less water, is ≥60 percent by volume nonvolatile material, Or if install/operate a carbon adsorption system which reduces VOCs from a capture system by a minimum of 90 percent by weight, or an incineration system which oxidizes a minimum of 90 percent of the non-methane VOCs, or uses other approved equivalent techniques Uses a capture system that provides for an overall reduction of VOCs of at least: - 75 percent for a publication rotogravure process - 65 percent for a packaging rotogravure process - 60 percent for a flexographic printing process			

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in Floating Roof Tanks	4.9.1.c	Retrofitted with a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted) if ..tank is welded and vapor pressure is ≥4.0 psi (27.6 kPa) ... or if tank is riveted and vapor pressure ≥1.5 psi (10.5 kPa) .. and the primary seal is a metallic type shoe seal, a liquid-mounted foam seal, a liquid-mounted, liquid-filled seal, or their equivalent ... or if the tank is welded or riveted and vapor pressure ≥1.5 psi (10.5 kPa) and the primary seal is vapor mounted	Capacity ≤950 bbls (40,000 gallons) External floating roof tanks <10,000 bbls (420,000 gallons) used to store produced crude oil and condensate ... A metallic type shoe seal in a welded tank which has a shoe mounted secondary seal	Approval	
		No visible holes, tears, or other openings in the seal(s) or seal fabric	External floating roof tanks storing waxy, heavy pour crudes		
		Seal must be intact and uniformly in place around the circumference of the floating roof ...	External floating roof tanks with a closure seal device or other devices installed which will control VOC emissions with effectiveness greater than or equal to seals required		
		For vapor mounted primary seals, the accumulated area of gaps between secondary seal and tank ≤21.2 cm^2 per meter of tank diameter and tank width <1.27 cm.			

STATE: UTAH

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in Floating Roof Tanks (Continued)		All openings in the external floating roof, except for automtic bleeder vents, rim space vents, and leg sleeves, shall provide a projection below liquid surface ... openings equipped with cover, seal, or lid ... closed at all time ... except when in use Automatic bleeder vents closed except when roof is floated off or landed on roof leg support ... Rim vents open when roof is floated off leg support ...			
Rubber Tire Manufacture		No regulation			
Drycleaning-Perchloroethylene	4.9.8	Any solvent liquid or solvent vapor leaks shall be repaired ... Residue from a solvent still $\leq$0.6 kg of solvent per kg of wet waste. Used diatomaceous earth filters shall be cooked or treated so that the residue $\leq$0.25 kg of solvent per kg of wet waste. Filtration cartridges must be drained in the filter housing at least 24 hours before being discarded ... drained cartridges should be dried in the drying tumbler after draining	Dry cleaning plants consuming <320 gallons of perchloroethylene per year	Approval	

Category	Reg No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Perchloroethylene (Continued)		Any other filtration or distillation system can be used if reduces waste losses to <0.01 kg per kg of clothes cleaned All exhaust gases from drying tumblers/cabinets must be vented through a carbon adsorber or other device which reduces total VOC emissions during the entire cycle by at least 90 percent by weight or to 100 ppm or less before dilution Test procedures			
Gasoline Tank Trucks	4.9.2.c	Designed and maintained to be vapor tight during loading, unloading, transport ... May be refilled only at installations equipped to recover, process and/or dispose of vapors. Tank shall not sustain a pressure change >750 pascals in 5 minutes when pressurized to 4,500 pascals or evacuated to 1,500 pascals	Vehicles which only service containers covered under regulations of 4.9.2(b)	Approval	

Note 1: Section 4.9.6 regulations do not apply to sources of VOC emissions ≤6.8 kg in any 24 hour period, nor more than 1.4 kg in any 1 hour provided emission rate are certified by July 1981; sources used exclusively for chemical/physical analysis or determination of product quality and commercial acceptance provided source's operation is not an integral part of the production process and emissions ≤363 kg in any one calendar month. Also includes capture system design/operation requirements and testing/monitoring requirements.

REGION IX

Arizona

California (Bay Area AQMD)

California (San Diego County)

California (South Coast AQMD)

Nevada (Las Vegas Valley)

NOTE: The entire State of Hawaii has been classified as an attainment area for ozone.

ARIZONA

Article 5. Existing Stationary Point Source Performance Standards

R9-3-509	Standards of performance for existing petroleum refineries
R9-3-510	Standards of performance for existing storage vessels for petroleum liquids
R9-3-525	Standards of performance for existing dry cleaning plants
R9-3-527	Spray painting operations

STATE: ARIZONA
ATTAINMENT DATE: 12/31/82
GEOGRAPHIC COVERAGE: Maricopa County

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, and methylene chloride

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Auto and Light-Duty Truck Surface Coating Magnet Wire Surface Coating Fabrics and Vinyl Surface Coating Paper		No regulations		Approval	The state has certified that no facilities that have >100 TPY potential emissions are known to exist in nonattainment area for these categories.
Surface Coating Cans (Organic Solvents)	R.34.E.4	Emission limitations:		Approval	See Note 1 See Note 2 See Note 3

	lbs VOC/gallon coating excluding water
Exterior and interior basecoat and overvarnish	2.8
Two-piece can exterior basecoat and overvarnish	2.8
Two- and three-piece can interior body coat	4.2
Two-piece can exterior end coat	4.2
Endsealing compound	3.7

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils (Organic Solvents)	R.34.E.4	Emission limitations: Prime coat: 2.6 lbs VOC/gallon coating excluding water Top coat: 2.6 Single coat: 2.6		Approval	See Note 1 See Note 2 See Note 3
Surface Coating Metal Furniture (Organic Solvents)	R.34.E.4	Emission limitation: 3.0 lbs VOC per gallon coating excluding water		Approval	See Note 1 See Note 2 See Note 3
Petroleum Liquids in Fixed Roof Tanks	R9-3-510	For tanks ≥40,000 gallons storing petroleum liquid with vapor pressure ≥1.5 psia, unless such tank is a pressure tank maintaining working pressure sufficient at all times to prevent vapor loss. Control devices required: a) a floating roof consisting of pontoon type, double deck type roof equipped with a closure seal, a vapor balloon, or vapor dome. . .shall not be used if the petroleum liquid has a vapor pressure ≥12 psia;		Approval	

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks (Cont'd)	R9-3-510	b) Shall have no visible holes, tears, or other openings in the seal or any seal fabric. . .all openings except drains shall be equipped with a cover, seal, or lid. . . closed at all times except when in use. Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed; c) Other proven equipment of equal efficiency. All tanks shall be equipped with submerged filling device. . . . All facilities for dock loading of petroleum liquids with a vapor pressure >1.5 psia shall provide for submerged filling . . . all pumps and compressors shall be equipped with mechanical seals or other equipment of equal efficiency. Monitoring requirements. Gasoline volatility testing and control program requirements.			
Gasoline Loading Terminals Bulk Gasoline Plants Service Stations-Stage I Miscellaneous Refinery Sources		No regulations		Approval	The state has certified no facilities that have >100 tons per year potential emissions are known to exist in the nonattainment area for these categories.

360

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (Organic Solvents)	R34.B	No vapor phase degreasing operation without minimizing organic solvent vapor diffusion emissions by good practices . . . not limited to the use of a free board chiller or other effective device . . . Spray degreasing shall be conducted in an enclosure equipped with controls that minimize emissions . . .		Approval	See Note 1
	R34.C.1	Must conform to the following operating requirements: a) Operate equipment in accordance with manufacturer's specifications; b) Cover is to remain closed when the degreaser is not in use; c) Degreasing equipment shall not be operated if solvent leaks occur; d) Solvents shall be stored and disposed of in a manner such that evaporation is minimized; e) Minimize organic solvent carryout by: (1) racking the items to allow full drainage and pouring out any solvent prior to removal, (2) in cold cleaners, allowing items to drain until dripping ceases before removal, (3) in open top vapor degreasers, not removing cleaned items until visibly dry (4) moving items in and out of the degreaser at a speed <11 ft. per minute; f) If the solvent is sprayed, the pressure must be ≤10 psig, the spray shall be a continuous fluid stream, and, in open top vapor degreasers, spraying shall be done within the vapor zone;			

341

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (Cont'd)	R34.B	g) porous or absorbent materials shall not be cleaned in open top vapor degreasers; h) agitation of the solvent shall be attained through pump recirculation or mixing. . .covers are to be placed over ultrasonic cleaners when the cleaning cycle >15 seconds; i) exhaust ventilation must be $\leq$65 ft^3 per minute per ft^2 of opening in open top vapor and conveyorized degreasers . . . fans shall not be used near degreasers, and water shall not be detectable visually in the solvent existing in the water separator.			
	R34.C.2	Following control equipment must be utilized: Cold cleaners: a cover easy to operate if the solvent has a Reid vapor pressure >0.3 psia, or is agitated or heated; a facility for draining the cleaned items, which must be internal if the solvent has a vapor pressure >0.6 psia; a freeboard height yielding a freeboard ratio $\geq$0.7, a watercover, and any other approved equally effective system when the solvent has a vapor pressure >0.6 psia or is heated >50°C Open top vapor degreasers: a easily operated cover which does not disturb the vapor zone; a condenser flow switch and thermostat and a spray safety switch; a freeboard ratio $\geq$0.75; a refrigerated freeboard chiller; a carbon adsorption system, if ventilation $\geq$ 50 ft^3/minute/ft^2 of vapor/air interface area, achieving 90 percent control efficiency; an enclosed design; and approved equally effective device	Open top vapor degreasers with an open area <10.75 ft^2		

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (Cont'd)	R34.C.2	Conveyorized degreasers: entrances and exits designed that clearance between items is either <4 inches or <10 percent of the width of the opening; a condenser flow switch and thermostat, and spray safety switch; a freeboard ratio $\geq$0.75; a refrigerated freeboard chiller; a carbon adsorption system achieving 90 percent control efficiency if ventilation $\geq$50 ft^3/minute/ft^2 of air/vapor interface area; an approved equally effective device	Conveyorized degreasers with an air/vapor interface $\leq$21.5 ft^2		
Cutback Asphalt (Organic Solvents)	R.34.L	No cutback asphalt may be sold, used, or applied	When the asphalt is used solely as a penetrating prime coat. Where stockpile storage is necessary for more than 1 month. When used or applied during Dec., Jan., or Feb. When the user can demonstrate no emissions of VOCs under normal use conditions. Use of asphalts with $\leq$7 percent by volume VOC prior to 6/1/82 . . . after 6/1/82 asphalts with $\leq$3 percent by volume VOC	Approval	

343

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks Surface Coating Flatwood Panels Pharmaceutical Manufacture Rubber Tire Manufacture Graphic Arts Petroleum Liquids in Floating Roof Tanks		No regulations			
Drycleaning - Petroleum and Chlorinated Solvent (Organic Solvents)	R.34.D	No dry cleaning using chlorinated synthetic solvents without minimizing emissions by accepted practices including, but not limited to, use of an adequately sized activated carbon adsorber, or an adequately sized vapor condensing system with a coolant inlet temperature $\leq 22^{o}C$, or other equally effective control device. No dry cleaning with petroleum solvents other than Stoddard, 140, or other non-photochemical reactive solvent without reducing emissions by ≥ 90 percent		Approval	See Note 1

STATE: ARIZONA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks		No regulations			
Surface Coating Architectural (Organic Solvents)	R.34.E.2	No person shall use, apply, evaporate or dry any architectural coating with a material containing photochemically reactive solvent, or thin or dilute any architectural coating with such solvents		Approval	

345

1) General VOC controls: No discharge >15 lbs VOCs/day from any machine, equipment, incinerator, or device in which any organic solvent or materials containing such solvents comes into contact with flame, or is baked, heat-cured, or heat-polymerized in the presence of oxygen; no discharge >40 lbs of organic material in any one day from any machine, equipment, incinerator, or device for employing, applying, evaporating, or drying any photochemically reactive solvent; emissions shall be reduced by incineration providing 90 percent oxidation, adsorption, or other equally effective means; except for manufacture, transport, or storage of organic solvents and spraying of insecticides, pesticides, or herbicides.

2) General requirements for spray paint operations: no person shall conduct any spray paint operation, except architectural coating, without utilizing an enclosed area (i.e., a three-sided structure with walls a minimum of 8 ft. high) designed to contain $\geq$96 percent by weight of the overspray (R.34.E.1)

3) Emission limits can be achieved by use of: low solvent coatings such as waterborne coatings, high solids coatings and powder coatings, or incineration, ultraviolet-curable coatings or carbon adsorption providing emission levels are as low as achievable with low solvent coatings, or any other approved, equally effective controls. Testing requirements to verify compliance are also specified.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Regulation 8 - Organic Compounds

Rule 1 - General Provisions
Rule 2 - Miscellaneous Operations
Rule 3 - Architectural Coatings
Rule 4 - General Solvent and Surface Coating Operations
Rule 5 - Storage of Organic Liquids
Rule 6 - Terminals and Bulk Plants
Rule 7 - Gasoline Dispensing Facilities and Gasoline Delivery Vehicles
Rule 8 - Wastewater (oil-water) Separators
Rule 9 - Vacuum Producing Systems
Rule 10 - Process Vessel Depressurization
Rule 11 - Metal Container, Closure and Coil Coating
Rule 12 - Paper, Fabric and Film Coating
Rule 13 - Light and Medium Duty Motor Vehicle Assembly Plants
Rule 14 - Surface Coating of Large Appliances and Metal Furniture
Rule 15 - Cutback Asphalts
Rule 16 - Solvent Metal Cleaning Operations
Rule 17 - Petroleum Solvent Dry Cleaning Operations
Rule 18 - Valves and Flanges at Petroleum Refinery Complexes
Rule 19 - Surface Coating of Miscellaneous Metal Parts and Products
Rule 20 - Graphic Arts Coating Operations
Rule 21 - Rubber Tire Manufacturing Operation
Rule 22 - Valves and Flanges at Chemical Plant Complexes
Rule 23 - Coating of Flatwood Paneling
Rule 24 - Manufacture of Synthesized Pharmaceutical Products
Rule 25 - Pumps an Compressor Seals at Petroleum Refineries
Rule 26 - Magnet Wire Coating
Rule 27 - Perchloroethylene Dry Cleaning Operations
Rule 28 - Pressure Relief Valves at Petroleum Refineries
Rule 29 - Aerospace Assembly and Component Coating Operations
Rule 30 - Semiconductor Manufacturing Operations
Rule 31 - Surface Coating of Plastic Parts and products
Rule 32 - Wood Furniture and Cabinet Coatings
Rule 33 - Bulk Gasoline Distribution Facilities and Gasoline Delivery Vehicles
Rule 34 - Landfill Operations
Rule 35 - Coatings and Ink Manufacturing

STATE: CALIFORNIA (Bay Area AQMD)
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties and portions of Sonoma and Solano Counties

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, and methylene chloride

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Surface Coating Auto and Light Duty Trucks	8-13-301.1		lb VOC/gal (minus water)	Final repair coatings or to the use of, - Wheel enamels, - Anti-rust coatings, - Truck coatings, - Interior coatings, - Flexible coatings, - Sealers, or - Other coating operations associated with applying body primer and topcoat coatings to exterior sheet metal and body.	Conditional State must require interim reports of progress	Regulation 8-13-302 must be met along with either 8-13-301.1 or 8-13-301.2
		Electrophoretic primer	1.2			
		Spray primer	2.9			
		Primer surfacer	2.9			
		Topcoat	4.9			
	8-13-301.2	Electrophoretic primer	1.2			
		Spray primer	3.3			
		Prime surfacer	2.8			
		Topcoat	3.2			
	8-13-302	After 1/1/85				
		Primer	2.3			
		Topcoat	2.3			
Surface Coating Cans	8-11-301		lb VOC/gal (minus water)		Approval	
		Sheet basecoat (interior and exterior) and overvarnish	2.5			
		After 1/1/85:	1.9			
		Two-piece can exterior basecoat and overvarnish	2.1			
		Interior or exterior body spray; two-piece can exterior and coating	4.3			

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Cans (cont'd.)	8-11-301	lb VOC/gal (minus water) Three-piece can side seam spray 5.5 End sealing compound 4.2 Two piece cans after 1/1/83 3.7 Three-piece cans after 1/1/85 3.7			
Surface Coating Metal Coils	8-11-303	200 grams VOC/liter or (1.7 lbs/gal) excluding water		Approval	
Surface Coating Paper Surface Coating Fabrics	8-12-301 8-12-301	Prohibits discharge of more than 120 grams VOC per liter (1.0 lb/gal) of coating applied, excluding water	Coating lines emitting <14.3 lb/day. Coating lines not applying heat for drying and/or curing the coating. Coating with a VOC content <2.2 lb/gal. Flexible packaging materials for food or health care products for human or animal consumption. VOC emissions from cleaning of coating line equipment. Any coating line where printing or decorative design is applied on the same line	Approval	

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	8-14-302	After 1/1/85: Baked coatings 2.3 lb VOC/gal (minus water); Air-dried coatings 2.8 lb VOC/gal (minus water)	Coating lines emitting <22 lbs VOC/day. Touch-up and repair operations.	Approval	
Surface Coating Large Appliances	8-14-302	Also, application must be made by electrostatic attraction or any other method with a transfer efficiency ≥65%			
Surface Coating of Insulation of Magnet Wire	8-26-301	Coating must contain <200 g/l (1.67 lb/gal), excluding water, of VOC. Control device efficiency of at least 90%	(1) Sources emitting 15 lbs. (6.8 Kg) or less of VOC (2) Coating of electrical machinery and equipment sub-assemblies.	Approval	
Petroleum Liquids in Fixed Roof Tanks	8-5-301	Tanks <40,000 gallons: Submerged fill pipe or vapor loss control device.	(1) Stationary storage tanks of capacity less than 260 gallons.	Approval	
	8-5-302	Above ground tanks <40,000 gal: Pressure-vacuum valve or vapor loss control device.	(2) Tanks in service prior to 1/4/67 not used for storage of gasoline intended for use in internal combustion engines, and is of capacity <2000 gallons or is an underground tank with an offset fill line.		
	8-5-310	Tanks >40,000 gal: Must maintain working pressures sufficient to prevent VOC loss or vapor loss or vapor loss control device.			

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	8-6-302	For a throughput >1,200,000 gal/yr: vapor balance or equivalent	(1) Vapor pressure <1.5 psia (2) After 1/1/81: Bulk plants with throughput <1,200,000 gal/yr which deliver to non-exempt distribution facilities only. After 1/1/83: Bulk plants with throughput <600,000 gal/yr which deliver to non-exempt distribution facilities only.	Approval	
	8-6-303	For a throughput >150,000 gal/yr: submerged fill pipe			
	8-6-304	Loading of storage tank between 2,000 and 40,000 gallons inclusive: vapor recovery system ≥95% efficiency or equivalent system			
Gasoline Loading Terminals	8-6-301 8-6-304	0.65 lb VOC/1000 gallons loaded Loading of storage tank between 2,000 and 40,000 gallons inclusive: vapor recovery system ≥95% efficiency or equivalent system.	Vapor pressure <1.5 psia	Approval	

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	8-7-301	Vapor recovery of 90% efficiency	Storage tanks with capacities ≤2000 gal and throughput ≤6000 gal/mo. Structures builts prior to 10/1/74 with retrofit problem as determined by APCO. Tanks used for fueling implements of husbandry.	Approval	
Miscellaneous Refinery Sources	8-8-301	Wastewater separators: Solid cover enclosing basin liquid contents, floating pontoon or doubledeck type cover, and vapor recovery system. Also, covering separator forebays. Equivalent if approved. Vapor recovery system of 95% efficiency.	Separators processing <200 gal/day organic liquids with a Reid vapor pressure ≤0.5 psi.	Approval	
	8-9-301	Vacuum producing systems: Incineration or collection of VOCs. Hot wells and accumulators; Incineration or collection of VOCs and covers for same.	Vacuum tank trucks		
	8-10-301	Process vessel depressurization: VOCs from process unit turnarounds recovered and combusted, or incinerated, flared, or contained sufficient to prevent release prior to attaining VOC partial pressure <4.6 psig.	Tanks used for storage only.		

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	8-16-302 8-16-305 8-16-304	Cold cleaning - similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG	Wipe cleaning. Operations installed before 3/7/79 using only one or more of the following: 1,1,1-trichloroethane, trichlorotrifluoroethane, or methylene chloride.	Approval	
Cutback Asphalt	8-15-301 8-15-302 8-15-303	Prohibits use of rapid-cure liquid asphalt. Prohibits use of cutback asphalt during April through October. Prohibits use of emulsified asphalt containing >3% petroleum solvents by volume.	Use of cutback asphalt as a penetrating prime coat prior to 1/1/82. Use of slow-cure cutback asphalt in asphalt/aggregate mixes. Use of cutback asphalt when the National Weather Service forecasts temperatures below 50°F for the 24-hour period following application.	Approval	
Refinery Leaks	8-18-301	Leak inspection and repair equivalent to CTG	Valves and flanges handling vapor pressures <1.5 psia, and natural gas. Valves on lines with diameter ≤1.8 cm.	Approval	
	8-25-301	Pumps and compressors equivalent to CTG.	Pumps and compressors handling v.p. <1.5 psia; using seal oil systems; having potential to <0.4 lbs./hr; and pumps compressors vented to a vapor recovery or disposal system of at least 90% efficiency.	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks (cont'd.)	8-28-301	Vented emissions to a vapor recovery or disposal systems of at least 90% efficiency or rupture disc on pressure relief valve.	Externally regulated valves, pressure relief valves in liquid service, and those on storage tanks.	Approval	
Surface Coating Miscellaneous Metal Parts	8-19-301	Interim Limits: (Effective January 1, 1983) Coatings with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by methods approved by the APCO: Baked Coatings 360 grams/liter (3.0 pounds/gallon) Air-Dried Coatings 420 grams/liter (3.5 pounds/gallon) Final Limits: (Effective Jananuary 1, 1985) Coatings with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by methods approved by the APCO: Baked Coatings 275 grams/liter (2.3 pounds/gallon) Air-Dried Coatings 340 grams/liter (2.8 pounds/gallon)	Low Usage Coating: Coatings which do not result in the emission of more than 10 kilograms (22 pounds) of VOC per day, provided that total emissions from all such exempted coating line do not exceed 20 kilograms (44 pounds) per day. Small Coating Lines: Coating lines which do not emit more than 10 kilograms (22 pounds) of VOC per day. Touch-up and Repair Specific Operations: The provisions of this Rule shall not apply to the coating of products, which may be subject to other District regulations. Pre-fabricated architectural components or structures, except where backed coatings are applied. Heavy Trucks: Until January 1, 1985, the following exemptions shall apply to facilities manufacturing customized class 8 trucks (gross vehicle weight of least 33,000 pounds) where production does not exceed 13,000 vehicles per year. The requirements of	Approval	

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Miscellaneous Metal Parts (cont'd.)			Section 8-19-301 shall not apply to top coating on truck cabs, hoods, sleepers, chassis or tire rims or to prime coating on truck chassis. Military Coatings: Coatings which are subject to approval by a military agency for use on military equipment until January 1, 1984, and Section 8-12-302 until January 1, 1986. Camouflage coatings subject to such approval shall be exempt from the requirements of Section 8-19-302 entirely. Pre-fabricated Structural Components: The use of air-dried coatings on pre-assembled stationary structures provided that such coatings comply with the limits in Rule 3 or Rule 4 of this regulation.		

954

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flatwood Panels	8-23-301	VOC Limits lb/1000 ft² (Kg/100 m²) (of finished product) Printer interior panels 6.0 (2.9) Natural finish hardwood plywood 12.0 (5.8) Class II finish hardboard panels 10.0 (4.8) Particleboard 6.0 (2.9)	Manufacture of exterior siding, tileboard, or particle-board, used as a furniture component.	Approval	Emission limits achievable through low-solvent coatings, incinerators with 90% oxidation of VOCs, or equivalent controls
Pharmaceutical Manufacture	8-24-301	Reduction in emissions to <15 lbs/day (6.8 Kg) by surface condensors, or equivalent. Prohibits emissions of >33 lbs/day (15 Kg) from rotary vacuum filters or separators for liquids of v.p. ≥0.5 psia unless reduced by 90% Sterilizors: After 6/1/81 emissions <150 lbs/day (15Kg). After 7/1/84 emissions must be reduced by at least 75% (mass basis).	Sources with potential to emit ≤15 lbs./day (6.8) Kg.). by 90%, and pressure	Approval	Regs require reduction in emissions from other process units (e.g., tanks, dryers) vacuum vents on tanks storing v.p. >1.5 psia
Rubber Tire Manufacture	8-21-301	Cementing and Bead Dipping: Collect and reduce emissions by 95% on a mass basis. Green Tire coating: Collect at least 90% of VOCs (mass basis) and reduce at control device VOC emissions by a least 95%.	Operators applying new tread to used tires.	Approval	
Graphic Arts	8-20-301	Use of low-solvent inks and coatings, or control of VOC emissions with 95% efficiency, or with approval of APCO reduce emissions by 85%	Sources emitting VOCs in amounts <22 lbs./day (10 kg.) Laboratories and	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (cont'd.)	8-20-301	Porous Substrate Requirement: The process uses only low-solvents inks, coating or adhesives. Emissions of approved emission control system, as defined in this Rule, with a control device efficiency of at least 90% on a mass basis, or device The operator had demonstrated to that satisfaction of the APCO the overall emissions of VOC from the printing, coating or laminating and drying operations have been reduced by a least 75 percent on a mass basis.	experimental operations provided emissions of VOC are <660 lbs per month (300 Kg). Offset lithography letterpress opera- Until 7/1/86 sources with potential to ≤90 metric tons per year, if 8-20-405 is satisfied.		
Petroleum Liquid Storage in Floating Roof Tanks	8-5-301	Tanks <40,000 gallons: Require submerged fill pipe or equivalent. Above ground tanks <40,000 gallons: for tanks >2000 gals. and installed after 1/9/76, a pressure vacuum valve is required. Tanks >40,000 gallons: Require pressure tanks with double seals, or equivalent	Tanks of capacity <260 gals. Tanks installed prior to 1/4/67 not used to store gasoline intended for engine fuel tanks and capacity <2000 gals, or is an underground tank with an offset fuel line. Floating roofs not resting on liquid surface, (e.g. cleaning stock change, removal, or repair).	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Perchloro-ethylene	8-27-301	Immediate repair of leaks. Solvent still residue contains <0.6 Kg solvent/ Kg of wet waste. Drainage of filtration cartridges for 24 hrs before discarding, 12 hrs before venting to control device. Carbon adsorber with at least 90% efficiency, and reduction in solvent emissions to 100 ppm before dilution Diatomaceous earth filters contain contain <0.25 Kg solvent per kg of waste	Facilities not using perchloroethylene or using <320 gallons (1200 liters) per year Facilities with inadequate space or steam capacity to properly operate carbon adsorption systems.	Approval	
Gasoline Tank Trucks	8-7-301	If delivering to motor vehicle fuel tanks, require vapor recovery system of 90% efficiency. Vapor tightness.	Trucks serviced from bulk plants only with throughputs <6,000,000 gallons per year. Trucks delivery only to tanks used for storage fuel used in husbandry.	Approval	
Valves, Flanges at Chemical Plants	8-22-301	If concentration of VOCs 1cm from leak >10,000 ppm, (1) repair leak in 15 days if valve/flange not essential. (2) if essential, minimize leak within 15 days (3) prohibits operation of leaking valve/flanges for >6 months.	Valves, flanges in unaccessible locations as defined by CAL OSHA. Valves, flanges on lines of diameter <1.8 cm. Valves, flanges handling liquids with Reid v.p. <1.5 psia; those handling natural gas and those in research facilities.	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Architectural Coatings	8-3-301	VOC Limits (minus water) g/l Interior Surface 350 Gen. coatings 250 Bituminous paving sealers must be of the emulsion type.	Coatings sold for use outside of the the AQMD, or for for shipment for reformulation or repackaging.	Approval	
Aerospace and Component Coatings	8-29-301	Interim Limits: Coatings with a VOC content in excess of the following limits expressed as grams of VOC per liter of coating applied, excluding water: Primer 650 (5.5 lbs/gal) Topcoat 600 (5.1 lbs/gal) Pretreatment 780 (6.5 lbs/gal) Adhesive bonding primer 850 (7.1 lbs/gal) Flight test coating 840 (7.0 lbs/gal) Fuel tank coating 720 (6.0 lbs/gal) Electric or radiation effect 800 (6.7 lbs/gal) Final Coating Limitation: Effective August 1, 1985, Coatings with a VOC content in excess of the following limits, expressed as grams VOC per liter of coating applied, excluding water: Primer 350 (2.9 lbs/gal) All other coatings, except primer and maskant for chemical processing 600 (5.1 lbs/gal)	Electronic Industries: Fabrication of electronic components, including but not limited to microprocessors, circuit boards, control systems and instrumentation. Federal Government: Until December 31, 1983, coating of aerospace assemblies and components procured by the Federal Government. Low Usage Coatings: coatings with separate formulations are used in volumes of less than 200 gallons per year. Small Facilities: Aerospace asssembly coating line which emits less than 9 kilograms (20 pounds) of VOC per day. Paper-Fabric-Film	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Aerospace and Component Coating (cont'd)	8-29-301	Temporary Protective Coating Limitation: Temporary protective coating with a VOC content in excess of 250 grams per liter (2.1 lbs/gal) as applied, excluding water. Stripper Limitations: Strippers which contain more than 400 grams/liter of precurs or organic compounds (3.3 lbs/gal) or has a true vapor pressure of more than 10mmHg (0.19 psia) at 70°F. Maskant for Chemical Processing Limitation: Effective August 1, 1985 Maskants for chemical processing to aerospace components: The VOC emissions from coatings operations are reduced by 85 percent, or The coating contains less than 600 grams of VOC per liter of coating, excluding water, as applied.	Coating: Source subject to and complies with the provisions of Regulation 8, Rule 12		
Semiconductor Manufacture	8-30-301	Covers for reservoirs, sinks, and containers; those installed after 1/1/84 require freeboard ratio of ≥0.75; Those installed prior to 1/1/84 require freeboard ≥0.75 in accordance with the following schedule: Reservoirs and sinks installed prior to 1979 — 1/1/85 Reservoirs and sinks installed between 1979 and 1981 — 1/1/86 Reservoirs and sinks installed between 1981 and 1984 — 1/1/87 Negative Photoresist Operations: Effective January 1, 1987, all exhaust gases	Sources emitting less than 15 lbs. (6.8 Kg) per day.	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Semiconductor Manufacture (cont'd.)		containing precursor organic vapors from negative photoresist operations shall be vented to control devices which reduce the total emission of precursor organic compounds to the atmosphere by at least 90 per cent by weight.			
Surface Coating Plastic Parts and Products	8-31-301	Effective 1/1/85: VOC content ≤420 g/l (3.5 lb/gal) minus water, without emission control Effective 1/1/87 VOC content ≤340 g/l (2.8 lb/gal) minus Flexible Coatings: VOC Limits (minus water) g/l (lb./gal) Primer 530 (4.4) 1/1/86 490 (4.1) Topcoat 500 (4.2) 1/1/86 450 (3.8) Base/clear coat 540 (4.5) 1/1/86 540 (4.5)	(1) Adhesives (2) Coatings used in volumes <50 gal/year (3) Metallic coatings (4) Sources with usage <500 gal/year. (5) Touch-up and repair (6) Camouflage and conductive coatings (7) Coatings on flexible parts (8) Parts for auto assembly if parts are covered under 8-13-301.	Approval	

360

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Wood Furniture and Cabinets	8-32-301	Effective 1/1/86, one or more of following application methods: Airless spray, or Air assisted airless spray, or Heated airless spray, or Low pressure spray using a coating with a solid content of 25% (wt) or greater, or Dip and drain, or Rollercoat, wipe or brush, or Electrostatic air spray. Use following Baseline VOC content for determining allowable emissions: Coating Application Step — VOC Content as applied, (less water): (g/l) / (lb/gal) Clear Topcoats 680 (5.7) Sealer 680 (5.7) Washcoat 740 (6.2) Pigmented Coating 600 (5.0) Semi-transparent Stain 800 (6.7) Opaque Stain 570 (4.8)	Facilities using <500 gals/year, all coatings	Approval	
Landfill Operations	8-34-301	Effective 1/1/87, all gases collected through a gas collection system, and processed by burning, delivering to a fuel distribution pipeline, or venting to a control device of at least 90% efficiency	The landfill has an in-place tonnage of less than 907,194 metric tons (1 million tons). The landfill has a disposal rate of <136.08 metric tons (150 tons/day).	Approval	

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Landfill Operations (Cont'd.)	8-34-301		The landfill has an average re-fuse depth of less than 6.09 meters (20 feet) or a surface area of less than 8.10 hectares (20 acres). The landfill is classified "Class III" as defined by the State Water Resources Control Board (SWRCB). A landfill which is no longer operational, if the in-place tonnage is less than 1.81 metric tons (2 million tons), and the landfill has an average refuse depth of less than 12.18 meters (40 feet) or a surface area of less than 16.20 hectares (40 acres).		
Coatings and Ink Manufacture	8-35-301	Effective 11/1/85, required are covers for all mixing vats Vats are limited in VOC emissions to < 15 lbs./day (6.8 Kg) or emissions should be vented to a control device of at least 90% efficiency	Small Manufacturers: Coating and/or ink manufacturers which produce less than 1.89 cubic meters (500 gals.) of coatings and/or ink in any one day.	Approval	

STATE: CALIFORNIA (Bay Area AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Coatings and Ink Manufacture (Cont'd.)			Waterbased Coatings and/or Paste Inks: Equipment while it is being used in the production of waterbased coatings and/or paste inks. Vats Less Than 12 Gallons: The Vats with a volume of .045 cubic meters (12 gallons) or less.		

SAN DIEGO COUNTY AIR QUALITY MANAGEMENT DISTRICT

Regulation IV. Prohibitions

Rule 61.1	Receiving and storing volatile organic compounds at bulk plants and bulk terminals
Rule 61.2	Transfer of volatile organic compounds into mobile transport tanks
Rule 61.3	Transfer of volatile organic compounds into stationary storage tanks
Rule 61.4	Transfer of volatile organic compounds into vehicle fuel tanks
Rule 61.7	Spillage of volatile organic compounds
Rule 61.8	Certification requirement for vapor control equipment
Rule 65.	Volatile organic compound water separators
Rule 66.	Organic solvents
Rule 67.0	Architectural coatings
Rule 67.2	Dry cleaning equipment using petroleum based solvent
Rule 67.3	Coating of metal parts and products
Rule 67.4	Can and coil coating operations
Rule 67.5	Paper and fabric coating operations
Rule 67.6	Solvent cleaning operations
Rule 67.7	Cutback and emulsified asphalts
Rule 67.8	Dry cleaning facilities using halogenated organic solvent
Rule 67.9	Aerospace coating operations
Rule 67.10	Kelp processing and bio-polymer manufacturing operations

STATE: CALIFORNIA (San Diego AQMD)
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: San Diego County

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, and methylene chloride

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto and Light Duty Surface Coating Truck					
Surface Coating of Insulation Magnet Wire		No regulations		Approval	The District has certified that no sources are known to exist in the non-attainment areas
Surface Coating Cans	67.4	Grams VOC/liter (minus water) Sheet basecoat 180 Two-piece can exterior basecoat 250 Two and three-piece can interior body spray, two-piece can exterior end spray 510 Three-piece can side seam spray 660 Can end sealing compound except for fatty food cans 440 Can end sealing compound for cans for fatty foods 480 After 1/1/85 440		Conditional approval, State must provide documentation that the limits based on amount discharged represent RACT or amend rule to be based on actual solvent content of coating.	

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	67.4	200 grams of VOC per liter of coating (minus water)		Same as Surface Coating Cans	
Surface Coating Paper Surface Coating Fabrics	67.5	Prohibits discharge of more than 120 grams VOC per liter of coating applied, excluding water. Requires closures on tanks and containers for organic solvent when empty and during cleaning or adding.	Processes emitting <6.5kg of VOC per day. Use of coating which emit or may emit <265 grams of VOC per liter of coating applied, excluding water.	Approval	
Surface Coating Metal Furniture	67.3	Grams VOC/liter (minus water)		Conditional approval	
Surface Coating Large Appliances	67.3	Air-dried or forced air-dried coatings 420 On or after 1/1/86 340 Baked coatings 360 On or after 1/1/86 275 Industrial machinery (extreme performance coating) 750 After 1/1/86 340 If dried at >90°C 275			

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks	61.1	Require internal floating roof, or vapor control system that is at least 95% efficient		Approval	
Bulk Gasoline Plants	61.1 61.3 61.4	Permanent submerged fill pipe, vapor recovery system with 95% capture efficiency Tanks require internal floating roof or vapor recovery system Applies to plants with tanks with capacities of 500 gallons or more (2080 liters)	VOCs with a Reid vapor pressure <3.0 psi and transport tanks with capacity ≥550 gallons Bulk plants in operation prior to 3/1/84 with annual throughput of 5,000,000 gallons of VOC or diesel.	Approval	
Gasoline Loading Terminals	61.1 61.4	Requires vapor recovery system Other rules same as for Bulk Gasoline Plants		Approval	
Service Stations - Stage I	61.3	For sources in use before 7/1/78, and which have throughputs of <9000 gallons/month, require submerged fill and a control system with 90% control efficiency. All other sources required to have submerged fill and a vapor recovery system with 95% efficiency.	Tanks <550 gallons	Approval	

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources	65	VOC water separators handling hydrocarbons with Reid v.p. of 0.5 psi require covers for all openings, or floating pontoon or double-deck type cover-with seals, or vapor recovery system with at least 90% efficiency	Oil-effluent water separators used only in the production of crude oil provided the oil-water effluent contains <5 ppm H_2S, organic sulfides, or combinations of same.	Approval	
Solvent Metal Cleaning	67.6	Cold cleaners for operations using solvents with v.p. >0.6 psia at 38°C or heating solvent above 50°C require (1) freeboard ratio ≥0.75 (2) water cover (if solvent is insoluble in and heavier than water), or (3) other methods as effective as (1). OTVD with air-vapor interface area >1 m^2 and conveyorized degreasers with air-vapor interface area >2m^2 require freeboard ratio ≥0.75 (OTVD only), or (2) refrigerated minimum capacity per foot, or chiller with 100 BTU/hour minimum capacity per foot, or (3) carbon adsorption system with a control efficiency of 90% or more, or (4) other approved control system.	Solvent metal cleaning operations installed or receiving authority to construct prior to 9/1/80 using only any of the following solvents: (1) 1,1,1-trichloroethane (methyl chloroform) (2) trichlorotrifluoroethane (Freon 113) (3) methylene chloride	Approval	

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (cont'd.)		Conveyorized degreasers also require a drying tunnel or other means to prevent solvent from being carried out of the degreaser and minimum sized openings.			
Cutback Asphalt	67.7	Cannot contain more than 0.5% by volume organic materials which evaporate at 260°C (500°F) or less.	Exemptions no longer in effect	Approval	
Refinery Leaks					
Surface Coating Flatwood Panels					
Pharmaceutical Manufacture		No regulations		Approval	
Rubber Tire Manufacture					
Graphic Arts					
Surface Coating Miscellaneous Metal Parts	67.3	Regulations are the same as for Surface Coating Metal Furniture		Approval	

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in Floating Roof Tanks	61.3	Applies to tanks with capacities ≥550 gal (2080 liters) and requires: (1) Permanent submerged fill pipe, and (2) Emission control system with at least 95% efficiency.		Approval	
	61.1	Requires leak tightness for tanks and automatic pressure vacuum relief valves.			
Drycleaning-Perchloroethylene	67.8	Leak tight; closures on all lint traps, access doors, and and other parts; content of still residues ≤60% by weight of VOC; content of diatomaceous earth filters ≤25% of VOC by weight; cartridge filters drained removing ≥90% of VOC or concentration ≤100 ppmv.	Facilities using trichlorotri-fluoroethane (Freon 113), 1,1,1-trichloroethane (methylchloroform), or methylene chloride Facilities using less than 320 gallons per year of halogenated solvents.	Approval	
Gasoline Tank Trucks	61.3	Applies to tank trucks ≥550 gal (2080 liters) capacity.		Approval	
	61.2	Requires vapor control to 90% efficiency.			

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Architectural Coatings	67.0	VOC Limits (minus water) g/l Flat coatings 250 Non-flat coatings (9/1/79 to 9/1/85) 380 (After 9/1/85) 250 COATING CATEGORY — Eff. 9/1/84 — Eff. 9/1/87 Varnish — 500 — 350 Lacquer — -- — 680 Semi-Transparent — -- — 350 Opaque Stains — 400 — 350 Semi-Transparent and Clear Wood Preservatives — 400 — 350 Opaque Wood Preservatives — 400 — 350 General Primers, Sealers and Undercoaters — 400 — 350 Speciality Primers, Sealers and Undercoaters — -- — 350	Coatings manufactured by small business prior to 3/1/84 provided content of VOC is ≤450 g/l.	Approval	Any of the coatings for which no September 1, 1984 limitation is listed is exempt from the requirements of Subsection (d)(5) until December 1, 1987. If any coating is intended for use in more than one of the coating categories, then the earliest compliance date and most stringent VOC limit shall be applicable to that coating.

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
Architectural Coatings (cont'd)		Industrial Maintenance Primers and Topcoats	-- 420			
		Dry Fog Coatings				
		Flats	550 420			
		Non-flats	420 400			
		Quick Dry Enamels	-- 400			
		Speciality Flats	-- 400			
		Waterproof Sealers	-- 400			
		Concrete Curing Compounds	-- 350			
		Roof Coatings	-- 300			
		Waterproofing Mastic Coatings	-- 300			
		Enamel Undercoaters	450 350			
		Traffic Paints for public streets & highways for other surfaces	250 250			
		Black traffic coatings	-- 250			
Aerospace Coatings	67.9	VOC Limits (minus water)	g/l	The use of 1,1,1-trichloroethane methylene chloride, and trichlorotrifluoroethane. Areas where ≤1 gal/day of coatings are used. Coatings with separate formulations used in volumes <20 gal/yr if ≤50 gal/yr of such coatings are used at a stationary source.	Approval	
		Primer	650			
		(After 7/1/85)	350			
		Top coat	600			
		Pretreatment	780			
		Adhesive Bonding Primer	850			
		(After 7/1/85)	600			
		Flight test	840			
		Fuel tank	650			
		Maskant (After 7/1/85)	600			

STATE: CALIFORNIA (San Diego AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Aerospace Coatings (cont'd)		Electromagnetic 800 Temporary Protective 250 Prohibits the use of VOCs with composite v.p. of 0.77 psia or greater at temperatures ≥21.1°C (70°F) 85% collection efficiency for VOCs used in cleanup.			
Kelp Processing and Bio-Polymer Manufacturing	67.10	Tanks require pressure-vacuum relief valves if above ground and capacities >20,000 gallons Leak tight pipes, valves, fittings, stills, etc. VOC emissions from driers reduced by 90% by weight. (Eff. 10/1/86)	Sources with potential to emit ≤15 lbs/day provided total emissions of VOC ≤100 lbs/day	Approval	Standards take effect on 6/1/85 unless otherwise noted.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Regulation IV Prohibitions

Rule 442	Usage of solvents
Rule 443	Labelling of solvents
Rule 461	Gasoline transfer and dispensing
Rule 462	Organic liquid loading
Rule 463	Storage of organic liquids
Rule 464	Oil-Effluent water separator
Rule 465	Vacuum producing devices or systems
Rule 466	Pumps and compressors
Rule 466.1	Valves and flanges
Rule 467	Pressure relief devices

Regulation XI Source Specific Standards

Rule 1102	Petroleum solvent dry cleaners
Rule 1102.1	Perchloroethylene dry cleaning systems
Rule 1103	Pharmaceuticals and cosmetics manufacturing operations
Rule 1104	Wood flat stock coating lines
Rule 1107	Coating of metal parts and product
Rule 1108	Cutback asphalt
Rule 1108.1	Emulsified asphalt
Rule 1113	Architectural coatings
Rule 1115	Automobile assembly line coating operations
Rule 1122	Solvent cleaners (degreasers)
Rule 1123	Refinery process Turnarounds
Rule 1124	Aerospace assembly and component coating operations
Rule 1125	Can and coil coating operations
Rule 1126	Magnet wire coating operations
Rule 1128	Paper and fabric coating operations
Rule 1130	Graphic arts
Rule 1136	Wood furniture and cabinet coatings
Rule 1141	Control of reactive organic gases from resin manufacturing
Rule 1141.1	Coatings and ink manufacturing
Rule 1141.2	Surfactant manufacturing
Rule 1145	Plastic, rubber, and glass coatings and adhesives
Rule 1148	Thermally enhanced oil recovery wells
Rule 1150	Excavation of landfill sites

STATE: CALIFORNIA (South Coast AQMD)
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Orange County and portions of Los Angeles, Riverside, and San Bernardino counties.

GENERAL EXEMPTIONS: Methane, ethane, 1,1,1-trichloroethane, trichlorotrifluoroethane, and methylene chloride

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Auto and Light Duty Trucks	1115	Emission Limits — Grams VOC/liter coating (minus water) Electrophoretic Applied Primer: 145 Primer Surfaces: 340 Spray Primer: 275 Top Coat: 275 Final Repair Primer: 590 Final Repair Topcoat (ex. last coat): 590 Final Repair Topcoat (last coat): 590	(1) Coating operations not associated with application of primer and topcoat coatings to exterior sheet metal and body (2) Use of: -Wheel topcoat application -Antirust coatings -Trunk coatings -Interior coatings -Flexible coatings -Sealers and deadeners -Plastic parts -Accent and stripe coatings (3) Any house car assembly line	Approval	
Surface Coating Cans	1125	Emission Limits — Grams VOC/liter coating (minus water) Sheet basecoat and (interior/exterior) overvarnish: 300 After 1/1/85: 225 Two-piece can exterior basecoat and overvarnish: 250	Spray coating of ≤3 gallons per day	Approval	

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Cans (cont'd)	1125	Interior/exterior body spray, two-piece can exterior end spray or rollcoat 510 Three-piece can side seam spray 660 End sealing compound 500 Two-piece cans, after 1/1/83 440 Three-piece cans, after 1/1/85 440			
Surface Coating Metal Coils	1125	200 grams VOC per liter of coating (minus water)	Spray coating of ≤3 gallons per day	Approval	
Surface Coating Paper Surface Coating Fabrics	1128	(1)(A) Paper and Fabric (95% minimum transfer efficiency) Grams VOC/liter (minus water) 265 (1)(B) Collection and reduction of VOC emissions to <120 grams/liter of coating applied	Facilities applying <2 gal/day of coatings	Approval	
Surface Coating Metal Furniture Surface Coating Large Appliances	1107	After 1/1/83: 360 g/l for coatings oven baked above 194°F. 420 g/l for extreme performance coatings 420 g/l for air drying at or below 194°F Transfer efficiency ≥65 percent. For operations requiring permits to construct, modify, or reconstruct after 1/1/82: 180 g/l	(1) Touch-up and repair (2) Metallic coatings (3) Stencil coatings (4) Primary architectural coatings (5) Safety indicating coatings (6) Effective 1/1/85 facilities using <3 gallons coatings in any one day.	Approval	Intended final limits are: -340g VOC/liter when dried at ≤90°C (194°F) -275 g VOC/liter when dried at ≥90°C (194°F)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture and Large Appliances (cont'd.)			(7) Until 1/1/85 facilities emitting <50 lbs VOC in any one day.		
Surface Coating of Insulation Magnet Wire	1126	Prohibits use of magnet wire coatings which contain more than 200 g/l VOC excluding water or reduce emissions from coating, drying and curing by 90 percent.	(1) Operations which emit <2.2 lb./hr but not more than 11 lb/day (2) Coating of electrical machinery and equipment sub-assemblies	Approval	
Petroleum Liquids in Fixed Roof Tanks	463	For tanks ≥40,000 gallons storing petroleum liquid with v.p. ≥1.5 psi, unless tank is a pressure tank maintaining working pressure sufficient at all times to prevent vapor loss control device may be; (1) a floating roof, (2) a fixed roof, (3) a vapor recovery system, or (4) other equivalent device	Oil production tanks of capacities >20,000 gallons but <40,000 gallons properly maintained are exempt when, (1) contents heated for not more than 48 hrs only once in a 20 day period for shipment and (2) tank has monthly average throughput of ≤30 barrels per day and was installed prior to 6/1/84	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquids in Fixed Roof Tanks (cont'd.)	463		Gasoline storage tanks at bulk gas terminals which do not have,(1) wastewater treatment facilities or (2) emission control facilities. Both for use in refloating the tank.		
Bulk Gasoline Plants	462	Class I facilities existing prior to 4/6/79 and loading 20,000 gallons per day or more require a vapor collection and disposal system, sufficient to limit VOC emissions to ≤0.95 lb per 1000 gallons transferred (114g/Kiloliter). Class II facilities existing since 4/6/79 and loading ≥20,000 gallons per day require a vapor collection and disposal system sufficient to limit emissions to ≤0.65 lb. per 1000 gallon (78g/Kl). Class III facilities loading <20,000 gallons (75,700 liters) per day but >500,000 gal annually require a vapor collection and transfer system designed to recover at least 90% of the displaced vapors. Class IV facilities existing prior to 1/9/76 loading <20,000 gallons (75,700 liters) in any one day but ≤500,000 gallons (1,892,000 liters) require submerged fill or bottom fill.		Approval	Effective 7/1/84: Class I facility emission limit 0.65 lb/1000 gal (78g/kl).

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants (cont'd.)		Class V facilities existing since 1/9/76 loading <20,000 gallons in any one day require the same controls as a Class III facility.			
Gasoline Loading Terminals	462	Facilities existing prior to 4/6/79: 114 g/1000 liters transferred, 78 g/1000 liter transferred effective 7/1/84 Facilities constructed, relocated, or changed ownership after 4/6/79: 78 g/1000 liters transferred.	Liquids with vapor pressure <77.5 mmHg	Approval	
Service Stations Stage 1	461	Submerged fill pipe. Vapor recovery system with a recovery efficiency of 95%. Vapor return lines. Vapor tight conditions on delivery vehicles.	Tanks with capacity <550 gallons (2080 liters) installed, (1) Before 1/31/70 or (2) Before 3/1/77, equipped with submerged fill pipe. Tanks of capacity <2000 gallons (7570 liters) (1) Installed prior to 3/5/75, and (2) Equipped with submerged fill pipe.	Approval	

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I (cont'd.)			Underground tanks installed prior to 3/5/75. Tanks for husbandry use. Tanks installed or constructed before 1/9/76 with a throughput of <20,000 gallons in any one day and less than 500,000 gallons annually, if tank is equipped with a sub-merged fill pipe. Vehicle fueling hydrant systems operating prior to 1/5/79. Facilities in the Coachella Valley Area in operation prior to 1/16/81 if tanks are capacity <1025 gallons or equipped with a submerged fill pipe if capacity is >550 gal. Facilities in the Joshua Tree or		

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I (Cont'd.)			Palo Verde Areas if tank is equipped with a submerged fill pipe. Facilities in the Antelope Valley Area if tanks have submerged fill pipe.		
Miscellaneous Refinery Sources	464	Waste water separator needs a cover, or a floating pontoon, or double-deck type, or closure seals.	Gravity type separators used exclusively for production of crude oil if the water fraction entering contains <5 ppm hydrogen sulfides plus organic sulfides and less than 100 ppm ammonia.	Approval	
	465	Vacuum producing device: need to be enclosed, and exhaust gases shall be incinerated with 90% efficiency and contain less than 800 ppm hydrogen sulfide.	Units which handle only coal tar products with true vapor pressure <10 mmHg at 60°F.		
	1123	Refinery Process Turnarounds: vessels shall not be depressurized unless the vapors released are collected or disposed until the pressure in the vessel is <5 psig, or within 10% above the minimum gauge pressure	Exhaust gases from any vacuum producing device if the gross heating value of the gases is <2500 Kg-Cal per cubic meter. Uncontrolled emissions of <20 lbs/day. Any vessel depressurized to <5 psig.		

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning	1122	Similar to CTG	Emulsion cleaners with a solvent content <2 percent by volume. Wipe cleaning. Cold cleaning if the vapor pressure of the VOC <33 mmHg at 38°C, with a freeboard ratio of ≥0.5. Vapor and conveyorized degreasers if refrigerant temperature at the outlet is ≤55°F. Vapor or conveyorized degreasers using perchloroethylene exclusively or used to clean non-metal surfaces exclusively.	Approval	
Cutback Asphalt	1108	Asphalt must contain <0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or less	Cutback asphalt subject to other rules. Use or manufacture for use of medium curing asphalt at elevations >2000 feet above sea level.	Approval	
	1108.1	Emulsified asphalts shall contain less than 3 percent by volume organic compounds which evaporate at 260°C (500°F) or less.			
Refinery Leaks	466	Routine leak inspection and repair equivalent to CTG	Pumps/compressors operating at temperatures >260°C (500°F); vented to an air pollution control system; shut down or scheduled for maintenance; handling liquids or gases with ≥80% water content	Approval	

3822

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks (cont'd)	466		or hydrogen composition; handles natural gas exclusively; pumps used in crude oil production and pipeline transfer; and pumps or compressors with driver of <1 horsepower		
Surface Coating Miscellaneous Metal Parts	1107	Same as Surface Coating Metal Furniture		Approval	
Surface Coating Flatwood Panels	1104	Effective 12/7/84: Wood flat stock coating or adhesive containing ≤2.1 lbs./gal. (250g/l) VOC, excluding water. Wood flat stock inks containing ≤4.2 lbs./gal (500g/l) VOC excluding water Emission control system with at least 90% efficiency on a mass basis.	Coating lines subject to other Reg. XI rules. Laminating fiberglass, metal or plastic sheets to wood panels. Wood panels for furniture end use. Until 1/1/87 coating lines using <3 gallons per day coating adhesive and ink.	Approval	
Pharmaceutical Manufacture	1103	Emission limits: lbs VOC/day Reactor 15 Distillation column 15 Crystallizer 15 Centrifuge 15	Facilities emitting ≤15 lbs./day VOC.	Approval	
Rubber Tire Manufacture		No regulation			District has certified that no sources exist in this category.

383

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts	1130	Rules require the adoption of one the following control options: 1. Use of 300 g/l low solvent ink 2. Use an approved emission control device with 90% efficiency and a collection system approved by the control office. 3. Demonstrate that an overall emission control reduction of at least 75% has been achieved, 4. Rules have interim % control requirements.	Facilities emitting <120 lbs. VOC in any one day, but <15 tons per year	Approval	(1)Compliance after 7/1/85 for No. 1 (2)Compliance after 1/1/83 for No. 2 and No. 3.
Petroleum Liquid Storage in Floating Roof Tank	463	Requirements are tanks ≥40,000 gallons storing petroleum liquid with v.p. ≥1.5 psia shall be pressure tanks or have double seals.	Oil production tanks with capacities between 19,815 gallons and 42,000 gallons with pressure-vacuum valves. Gasoline storage tanks at bulk terminals.	Approval	
Drycleaning-Perchloroethylene	1102.1	Carbon adsorber or other control devices to reduce VOC emission by 90%, or VOC concentrations at the control device outlet of ≤100 ppm as measured and averaged over a 5 minute period.	Facilities using <320 gallons per year of solvent.	Approval	
Gasoline Tanks Trucks	462	Certification of vapor integrity required.		Approval	

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning-Petroleum Solvent	1102	Carbon adsorber or other control device sufficient to reduce hydrocarbon emissions from exhaust gases by at least 90% by weight.		Approval	
Manufacture of High Density Polyethylene, Propylene, and Polystyrene Resins	1141.	Reduction of gases from reactors, tanks, and vents: (After 7/1/85) To 0.5 lb. per 1000 lbs. of product, or By 95% or more. Continous polystyrene process: Reduction of emissions from devolatizer and styrene recovery systems to 0.12 lb. per 1000 pounds of produced resin.	Facilities emitting <10 lbs, of reactive organic gases per day	Approval	
Architectural Coatings	1113	Grams VOC/liter (minus water) Flat coating 250 Non-Flat 380 Small Business Non-Flat 450	Coating supplied in amounts ≤1 liter Coatings for one or more of the following uses. (A) fire retardant coatings (B) tile-like glaze coatings	Approval	

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement		Exemptions	EPA Action	Comments
		Effective 9/1/84	Effective 9/1/87			
Architectural Coatings (cont'd.)	1113			(C) mastic texture coatings (D) metallic pigmented coatings. (E) swimming pool paints. (F) multi-color paints. (G) quick dry primers, sealers and undercovers. (H) shellac. (I) sign (graphic arts) coatings. (J) bond breakers. (K) below ground wood preservative coatings. (L) dry fog coatings (until September 1, 1984).		
		Varnish	500	350			
		Lacquer	-	680			
		Semi-transparent stains	-	350			
		Opaque Stains	400	350			
		Semi-transparent and clear Wood Pre-servatives	-	350			
		Opaque Wood Pre-servatives	400	350			
		General Primers, Sealers and Undercoaters	400	350			
		Speciality Primers, Sealers and Undercoaters	-	350			
		Industrial Maintenance Primers and Topcoats	500*	420			
		Dry Fog Coatings					
		Flats	550	420			
		Non-Flats	420	400			
		Quick Dry Enamels	-	400			
		Speciality Flats	-	400			
		Waterproof Sealers	-	400			
		Concrete Curing Compounds	-	350			
		Roof Coatings	-	300			
		Waterproofing Mastic Coatings	-	300			
		Enamel Under coaters	450	350			

*This limit shall become effective on September 1, 1985.

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Architectural Coatings (cont'd.)		Effective 9/1/84 / Effective 9/1/87 Traffic Paints For Public streets and highways: 415 / 250 For other surfaces: 250 / 250 Black traffic coatings: - / 250			
Aerospace Assembly and Component Coatings (cont'd)	1124	Prohibits application to aerospace components any coatings which contains VOC in excess of: (A) 650 grams per liter of primer less water, as applied. (B) 600 grams per liter of topcoat less water, as applied. (C) 780 grams per liter of pretreatment coatings less water, as applied. (D) 850 grams per liter of adhesive bonding primer less water, as applied. (E) 840 grams per liter of flight test coatings less water. as applied (F) 720 grams per liter of fuel tank coatings less water, as applied (G) 800 grams per liter of electric or radiation effect coatings less water. Apply to aerospace components any temporary protective coating that contains more than 250 grams of VOC per liter of material less water, as applied. Cleanup Solvents (A) Before January 1, 1985, use VOC containing materials which have a composite vapor pressure of 77.6 mm Hg (1.5 psia) or greater at a temperature of 21.1°C (70°F) for surface preparation or cleanup excluding coating stripping.	Coatings used in volumes <20 gal/year Facilities emitting a total <20 lbs (9072g) per day. Facilities using <1.5 gal/day coatings for military corrosion maintenance.	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Aerospace Assembly and Component Coatings (cont'd.)	1124	(B) On or after January 1, 1985, use VOC containing materials which have a composite vapor pressure of 45mm Hg or greater at a temperature of 20°C (68°F)for surface preparation or cleanup, excluding coating stripping.			
Wood Furniture and Cabinet Coatings	1136	Low solvent coatings, transfer efficiencies. Applications Methods — Transfer Efficiency Percent Air Spray — 24 Electrostatic disk or bell atomizer — 85 Electrostatic air spray — 70 Airless spary — 40 Heated airless spray — 40 Air assisted airless spray — 40 Dip and drain — 90 Rollercoat, wipe or brush — 95 Coating Step — VOC Content as applied, (less water) (g/l) (lb/gal) Clear Topcoats — 700 (5.8) Sealer — 690 (5.7) Washcoat or Toner — 740 (6.2) Pigmented Coating — 600 (5.0) Semitransparent Stain — 800 (6.7) Opaque Stain — 570 (4.8)	Until 6/16/85, toner, washcoat, or semitransparent stains. Touch up and repair. Operations using <1000 gallons per year of coatings.	Approval	

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Coatings and Ink Manufacture	1141.1	Requires covers for vats, mixers, and requires cleaning operations to minimize emissions of reactive organic gases.	Manfacturers producing <500 gallons of ink or coatings in any one day. Equipment producing waterbased coating and/or paste inks. Equipment used to make coatings in vats in volumes of ≤12 gallons	Approval	
Surfactant Manufacturing	1141.2	Reduction of emissions of reactive organic gases (ROG): -to 0.5 lb. per 1000 pounds of surfactant produced or -by 95% weight basis or more, and Closures on all ports.	Soap manufacturing facilities. Facilities that only blend and package. Equipment using only organic materials with a v.p. <5mm Hg at 20°C. Facilities emitting <5 lbs. ROG per day.	Approval	
Plastics, Rubber and Glass Coatings and Adhesives	1145	Prohibits coatings containing VOCs (minus water) in excess of the following: VOC Limits g/l / lb/gal General Coatings One-component 275 / 2.3 Two-component 500 / 4.2 Camouflage Coatings (One-component) 420 / 3.5 Military Spec. Coatings One-component 420 / 3.5 Two-component 500 / 4.2 Rubber 275 / 2.3 Glass 275 / 2.3 Adhesives on Glass, Rubber, or Plastics 250 / 2.1	(A) Touch-up and repair. (B) Metallic coatings. (C) Clear or translucent (D) Clear or translucent (i) applied on clear or transparent substrate (ii) applied in vacuum metalizing operations (E) Mirror backing coating (F) Rubber coatings for aircraft radome areas (G) Reflector coatings. (H) Coatings or operations subject to other rules (I) Coatings used in volumes <50 gallons in anyone year.	Approval	Effective 1/1/86: VOC Limits g/l / lb gal General Coatings Two component 420 / 3.5 Military Spec. One-component 340 / 2.8 Two-component 420 / 3.5

STATE: CALIFORNIA (South Coast AQMD)

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Thermally Enhanced Oil Recovery Wells	1148	Steam well drive: ROG emission ≤4.5 lbs./day If connected to a vapor control system, ROG emissions average ≤4.5 lbs./day per connected well.		Approval	
Excavation of Landfill Sites	1150	Approved excavation management plan	Drilling of holes for geological evaluation, or telephone/power transmission lines. Oil, gas, landfill gas collection wells. Emergency excavations	Approval	

NEVADA

Article 9 - Organic Solvent, Other Volatile Compounds

9.1 [General provisions]
9.2 Storage containers equal to or greater than 150 kiloliters
9.3 Loading of petroleum or volatile organic compounds

STATE: NEVADA
ATTAINMENT DATE:
GEOGRAPHIC COVERAGE: Las Vegas Valley (Portion of Clark County) and Statewide where indicated.

GENERAL EXEMPTIONS: None

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Auto and Light-Duty Trucks Surface Coating Cans Surface Coating Metal Coils Surface Coating Paper Surface Coating Fabrics and Vinyl Surface Coating Metal Furniture Surface Coating Magnet Wire Miscellaneous Refinery Sources		No regulations		Approval	The State has certified that no facilities are known to exist in the nonattainment area.
Surface Coating Large Appliances (County)	Section 60.3.1	Emission limitation for application area(s), flashoff area(s), and coating lines involved in prime, single, or top coat coating: 2.8 lbs VOC/gallon coating excluding water. Emission limit shall be achieved by: a) use of low solvent coatings b) other controls such as incineration or carbon adsorption capable of achieving emission levels as low as those of low solvent coatings	Quick drying lacquers for repair of scratches and nicks, provided that the volume <1.0 liters in any one 8 hour period	Approval	See Note 1

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Storage in Fixed Roof Tanks (State)	Article 9.2	Tanks with a capacity ≥40,000 gallons storing petroleum liquids ≥1.5 psia shall maintain a working pressure sufficient at all times to prevent vapor or gas loss . . . or must be equipped with one of the following control devices.		Approval	
	9.2.1.1	A floating roof of a pontoon type or a double-deck roof . . . equipped with a closure seal . . . or a vapor balloon, or a vapor dome . . . unless the liquid has a vapor pressure ≥11 psia.			
	9.2.1.2	Other equipment proven to be of equal efficiency			
	9.2.2	Any other petroleum or VOC storage tank constructed or extensively remodeled after the effective date of the regulations shall be equipped with a submerged fill pipe or approved equivalent			
Petroleum Storage in Fixed Roof Tanks (County)	Section 50.1	Tanks with a capacity ≥40,000 gallons storing petroleum liquids with a vapor pressure ≥1.5 psia shall maintain a working pressure sufficient to prevent vapor or gas loss . . . or must be equipped with . . . an internal floating roof consisting of a pontoon-type or double-deck type roof (unless the liquid has a vapor pressure >11 psia), or a vapor recovery system, or other approved equipment of equal efficiency Shall be no visible holes, tears, or others openings in the seal or seal fabric . . . and all openings, except stub drains, are to be equipped with a cover, seal, or lid kept closed unless the device is in use		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Storage in Fixed Roof Tanks (County) (Cont'd)		Automatic bleeder vents are to be closed except when the roof is floated off or landed . . . rim vents are to be set open when the roof is floated off			
Bulk Gasoline Plants (County)	Section 51.1	Facilities dispensing ≥5,000,000 gals/yr shall not load any petroleum product with a vapor pressure ≥1.5 psia into any tank truck, trailer, or tank car unless equipped with a vapor collection and disposal system or its equivalent Facilities dispensing <5,000,000 gals/yr shall not load any petroleum product with a vapor pressure ≥1.5 psia unless equipped with loading equipment designed for bottom loading or uses a submerged fill tube Shall be a vapor-tight seal between the vapor-collecting adaptor and the hatches of a tank truck or trailer. Liquid gasoline drainage must be prevented when the loading device is removed.	Facilities that fill tank trucks that service only exempted gasoline stations	Approval	See Note 1
		Vapor disposal system shall consist of one of the following: 1) a vapor-liquid absorber system with a minimum recovery efficiency of 90 percent by weight ii) a variable vapor space tank, compressor, and fuel gas system of sufficient capacity to receive all displaced vapors and gases	Facilities that fill tank trucks that service only exempted gasoline stations		See Note 1

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants County) (Cont'd)		iii) other approved equipment of at least 90 percent efficiency Mixture of vapor and air displaced during loading will be vented only to the vapor recovery system			
Gasoline Loading Terminals (County)	Section 51.1	Vapor recovery/disposal of at least 90 percent efficiency	Facilities that fill tank trucks that service only exempted gasoline stations	Approval	See Note 1
Service Stations-Stage I (County)	Section 52.4	New stations: after 1/1/78, must be equipped with a vapor control system that must: i) prevent release >90 percent by weight of VOCs in the vapor displaced during filling of the storage tanks ii) recover displaced vapors from the storage tank and tank trucks (vapor recovery system) at least ≥90 percent by weight iii) have a vapor-tight gasoline fill connector . . . a vapor-tight return line of at least 3 in. nominal diameter iv) approved devices/procedures that insure the vapor line is connected before gasoline is transferred into the storage tank	Stations with a combined tank capacity <251 gallons	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations-Stage I (County) (Cont'd)	Section 52.5	Existing stations: after 1/1/79, must be equipped with an approved vapor control system to prevent release of ≥90 percent by weight of VOCs in the vapor displaced during filling of the storage tanks; must recover displaced vapors from the storage tank and tank trucks at ≥90 percent efficiency; shall have a vapor-tight gasoline fill connector and return line	Stations with an annual combined tank capacity <96,000 gallons		
	Section 52.1	All storage tanks must be equipped with submerged fill pipes	Tanks installed before 3/25/68 where the fill line is offset or with a capacity ≤2,000 gallons		
Solvent Metal Cleaning (County)	Section 60.2	Degreasing: 1) disposal or transfer of waste solvent is not permitted where evaporation >10 percent by weight 2) waste solvent shall only be stored in covered containers 3) degreasing containers shall be equipped with an easily operable cover to be kept closed unless adding or removing material 4) cleaned material shall drain for at least 15 seconds 5) when solvent is applied by a hose under pressure, the solvent must be in the solid fluid state, not as an atomized spray, applied at a pressure to prevent excessive splashing 6) containers equipped with a permanent conspicuous label		Approval	

STATE: NEVADA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Solvent Metal Cleaning (County) (Cont'd)		7) must use an internal drainage facility to drain parts degreased with a highly volatile solvent 8) if a highly volatile solvent is used or if a solvent is heated >50°C, one of the following control devices must be used: i) freeboard that gives a freeboard ratio >0.7 ii) water cover iii) other systems of equivalent control			
Cutback Asphalt (County)	Section 60.4.2	After 7/1/80, use of cutback asphalt is prohibited	When used as a penetrating prime coat When stockpiling patching mixes for a long period of time When ambient temperatures for the 24 hour period following application is not expected to exceed 10°C	Approval	See Note 1
Gasoline Tank Trucks (County)	Section 52.4.2.2.4	Tank truck shall be designed and maintained in a vapor-tight condition . . .	Trucks that supply gasoline only to exempted gasoline stations	Approval	
	Section 52.4.2.4	Shall be refilled only at facilities equipped with a vapor control system			

397

STATE: NEVADA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks					
Surface Coating Flatwood Paneling					
Pharmaceutical Manufacture		No regulations			
Rubber Tire Manufacture					
Graphic Arts					
Drycleaning Perchloroethylene					
Organic Solvent, Other VOCs (State)	Article 9.1	Materials such as, but not limited to, solvents or other VOCs . . . shall be processed, stored, used, and transported in such a manner and by such means to minimize the tendency to evaporate, leak, escape, or otherwise be discharged. . .			
Dock Loading Facilities (State)	Article 9.3	All facilities for dock loading of petroleum or VOCs with a vapor pressure $\geq$1.5 psia shall provide a submerged fill pipe or acceptable equivalent for filling			
Filling of Gasoline Tanks of Motor Vehicles (County)	Section 52.8	Shall not fill or top-off motor vehicle tanks to a level which allows spillage			

STATE: NEVADA

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Airplane Refueling Areas (County)	Section 52.9	After 1/1/78, must be equipped with a vapor recovery system of at least 90 percent efficiency by weight	Areas with an annual combined output <96,000 gallons of gasoline		

Note 1. General requirements: materials including solvents and other VOCs shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged . . .; and where control methods are available to reduce emissions effectively.

3994

REGION X

Oregon

Washington

NOTE: The entire States of Alaska and Idaho have been classified as attainment areas for ozone.

OREGON

General Emission Standards for Volatile Organic Compounds

340-22-100	Introduction
340-22-102	Definitions
340-22-104	General requirements for new and existing sources
340-22-106	Exemptions
340-22-107	Compliance determination
340-22-108	Applicability of alternative control systems
340-22-110	Small gasoline storage
340-22-120	Bulk gasoline plants and delivery vessels
340-22-130	Bulk gasoline terminals
340-22-137	Testing vapor transfer and collection systems
340-22-140	Cutback and emulsified asphalt
340-22-150	Petroleum refineries
340-22-153	Petroleum refinery leaks
340-22-160	Liquid storage
340-22-170	Surface coating in manufacturing
340-22-180	Degreasers
340-22-183	Open top vapor degreasers
340-22-186	Conveyorized degreasers
340-22-190	Asphaltic and coal tar pitch used for roofing coating
340-22-200	Flat wood paneling
340-22-210	Rotogravure and flexographic printing
340-22-220	Perchloroethylene dry cleaning

STATE: OREGON
ATTAINMENT DATE: 1982 For Jackson and Lane Counties, all others 1987
GEOGRAPHIC COVERAGE: Portions of Clackmas, Jackson, Lane, Marion, Multromah, and Washington Counties

GENERAL EXEMPTIONS: Methane, ethane methyl chloroform, methylene chloride, trichlorotrifluoroethane

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Auto. and Light-Duty Trucks	340-22-170 4.f	Emission limitations: lb/gal (minus water) Prime coat 1.9 Top coat 2.8 Repair 4.8		Approval	See Notes 1,2, & 3
Surface Coating Cans	340-22-170	Emission limitations: lbs/Gal Coating (Minus Water) Exterior/interior sheet basecoat and overvarnish; two piece can exterior basecoat and overvarnish. 2.8 Two- and three-piece can interior body spray, two-piece can exterior end spray or roll coat. 4.2 Three-piece can side-seam spray 5.5 End sealing compound 3.7		Approval	See Notes 1,2, & 3

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Coils	340-22-170 4.b	Emission limitation: 2.6 lbs VOC/gallon coating excluding water		Approval	See Notes 1,2, & 3
Surface Coating Paper	340-22-170 4.e	Emission limitations: 2.9 lbs VOC/gallon coating excluding water		Approval	See Notes 1,2, & 3
Surface Coating Fabrics and Vinyl	340-22-170 4.c, d	Emission limitations: Fabric: 2.9 lbs VOC/ gallon coating excluding water Vinyl: 3.8 lbs VOC/ gallon coating excluding water		Approval	See Notes 1,2, & 3
Surface Coating Metal Furniture	340-22-170 4.g	Emission limitation: 3.0 lbs VOC/gallon coating excluding water		Approval	See Notes 1,2, & 3
Surface Coating Large Appliances	340-22-170 4.i	Emission limitation: 2.8 lbs/VOC gallon coating excluding water		Approval	See Notes 1,2, & 3
Surface Coating Magnet Wire	340-22-170 4.h	Emission limitation: 1.7 lbs VOC/gallon coating excluding water		Approval	See Notes 1,2, & 3

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in Fixed Roof Tanks	340-22-160	After 4/1/81, tanks storing methanol or other VOC liquids with a vapor pressure >1.52 psia but <11.1 psia and a capacity >39,000 gallons, shall comply with one of the following: a) Equipment specifications of 40 CFR Subpart K and Ka as amended	Storage of waxy, heavy pour crude oil	Approval	
		b) Retrofitted with a floating roof or internal floating cover using at least a nonmetallic resilient seal	Tanks with a capacity <420,000 gallons used to store produced crude oil and condensate.		
		c) Fitted with a floating roof or internal floating cover with manufacturers specifications. Seal fabric shall contain no visible holes, tears, or other openings...all openings, except stub drains, are to be sealed with suitable closures.	Tanks containing a VOC with a vapor pressure <1.5 psia. Tanks containing a VOC with a vapor pressure <4.0 psia and are of welded construction, and presently possess a metallic-type shoe seal a liquid-mounted foam seal, a liquid-mounted liquid filled type seal or are of welded construction equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall.	Approval	

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Bulk Gasoline Plants	340-22-120	No transfer to or from bulk gasoline plant unless: a) Each storage tank and delivery vessel uses submerged fill b) Displaced vapors are prevented from release through use of a vapor tight vapor balance system Each tank may release vapor through a pressure relief valve set to release no less than 0.5 psi. Compliance by 4/1/81 except where added equipment is required by rule changes, compliance is delayed to 4/1/83	If bulk gasoline transfers <4,000 gallons per day or if each of the dispensing facilities to which the plant delivers receives <10,000 gallons/month	Approval	
Bulk Gasoline Terminals	340-22-130	After 4/1/81, no VOCs emitted in excess of 80 mg VOC/liter of gasoline loaded at terminals with daily throughputs >20,000 gallons/day. Requirements: all displaced vapors must be vented only to a vapor control system; loading device must not leak when in use and must be operated to allow no more than 10 cm^3 drainage per disconnect every 5 consecutive disconnects; all loading vapor lines are equipped with fittings with vapor-tight connections		Approval	Except when delivery vessels are switched to diesel delivery service or to delivery of other VOCs with a vapor pressure <4.0 psia

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	340-22-110	No transfer to storage tanks with a capacity <40,000 gallons unless a) Tank is filled by submerged fill b) A vapor recovery system is used, or c) Vapors are processed by a system demonstrated to be of equal effectiveness Compliance by 4/1/81, except where added equipment is required by rule changes, compliance is delayed to 4/1/83	Transfers made to storage tanks equipped with floating roofs or Tanks with a capacity <550 gallons used exclusively for the fueling farm equipment Tanks at a facility filled by a delivery vessel filled at an exempted bulk gasoline plant. Facilities receiving ≤10,000 gallons per month from a bulk gasoline plant.	Approval	
Miscellaneous Refinery Sources	340-22-150	After 4/1/79: 1) Vacuum-producing systems: non-condensable VOCs shall be piped to an appropriate firebox, incinerator or to a closed refinery system; hot wells associated with contact condensers shall be tightly covered and the collected VOCs sent to a closed refinery system.		Approval	
	340-22-150	2) Wastewater separators: forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed, or a floating pontoon or double deck-type cover equipped with closure with suitable covers when not in use.			

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Miscellaneous Refinery Sources (Cont'd)	340-22-150	3) Process unit turnaround: VOCs contained in process unit to be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system; pressure before venting shall be <5 psia.			
Solvent Metal Cleaning	340-22-180 340-22-183 340-22-186	Similar to CTG for cold cleaners Similar to CTG for OTVD Similar to CTG for conveyorized degreaser		Approval	
Cutback Asphalt	340-22-140	After 4/1/79, use of any cutback aspahlt is prohibited during April-October	(1) use as a penetrating prime cost, (2) Long life storage, (3) when high temperature for preceeding 24 hours is <10°C	Approval	

407

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Asphaltic & Coal Tar Pitch Used for Roof Coating	340-22-190	After 4/1/80, shall not use equipment for melting, heating, or holding asphalt or coal tar pitch unless gas-entrained effluents are contained by close fitting covers Shall maintain the temperature of the asphalt or coal tar pitch below 285°C or 17°C below the flash point whichever is lower	Equipment with capacity ≤26 gallons or equipment with capacity ≤159 gallons provided it is equipped with a tightly fitted lid or cover	Approval	
Refinery Leaks	349-22-153	After 10/1/80, upon detection of a leaking component, which has a VOC concentration >10,000 ppm, shall repair and retest the component within 15 days; shall not install a valve at the end of a pipe or line unless sealed with a second valve, a blind flange, a plug, or a cap. Testing, monitoring, recordkeeping, and reporting requirements.	Does not apply to components handling liquids with a vapor pressure <1.52 psia	Approval	
Surface Coating of Miscellaneous Metal Parts	340-22-170 4.j	Emission limitations: Clear coatings: 4.3 lbs/Gal Coating (Minus water) Force air dried or air dried: 3.5 Extreme performance coatings: 3.5 Other coatings (powder, oven dried): 3.0		Approval	See Notes 1,2, & 3

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Flat Wood Paneling	340-22-200	After 12/31/82, emissions of VOCs from coating application must be: a) ≤2.9 kg/100 m^2 of coated finished product from printed interior panels, regardless of the number of coats applied b) ≤5.8 kg/100 m^2 of coated finished product from natural finish hardwood plywood panels, regardless of the number of coats applied c) ≤4.8 kg/100 m^2 of coated finished product from Class II finishes on hardboard panels, regardless of the number of coats applied Shall achieve emission limits by: a) application of low solvent content coating technology b) an incineration system which oxidizes ≥90 percent of the nonmethane VOCs c) an approved equivalent means of VOC removal A capture system must be used with any emission control system . . . the capture system must provide for an overall emission reduction sufficient to meet the emission limitations Compliance demonstration requirements.	Manufacture of exterior siding, tile board, particle board used as a furniture component, or paper or plastic laminates on wood or wood-derived substrates	Approval	
Graphic Arts	340-22-210	After 7/1/82, a facility emitting >100 ton/yr, employing solvent-based inks must: a) use an ink that contains ≤25 percent by volume of solvent and ≥75 percent by volume water, as applied; or b) use an ink that, as applied less water, contains ≥60 percent by volume non-volatile material; or		Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Graphic Arts (cont'd)	340-22-210	c) install and operate a carbon adsorption system which reduces VOC emissions ≥90 percent by weight; or d) an incineration system oxidizing ≥90 percent of the nonmethane VOCs; or e) an approved alternative emissions reduction system of ≥90 percent reduction efficiency A capture system must be used with any emission control system providing an overall reduction in VOC emissions of: a) ≥75 percent where a publication rotogravure process is used b) ≥65 percent where a packaging rotogravure process is used c) ≥60 percent where a flexographic printing process is used Compliance demonstration requirements.			
Petroleum Liquid Storage in External Floating Roof Tanks	340-22-160 4.c	After 12/31/81, no storage of VOCs in tanks subject to this rule unless: a) Tank has been fitted with: a continuous rim-mounted secondary seal; a closure device which controls VOC with an effectiveness ≥ to a rim-mounted secondary seal b) There are no visible holes, tears, or other openings in all seals or seal fabrics c) For vapor mounted seals, the accumulated area of gaps >0.32 cm in width between the secondary seal and tank wall is ≤21.2 cm^2 per meter of tank diameter.		Approval	

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Petroleum Liquid Storage in External Floating Roof Tanks (Cont'd)	340-22-160 4.c.	d) All openings except for automatic bleeder vents, rim space vents, and leg sleeves are equipped with covers, seals, or lids that are closed except. e) Are equipped with projections that extend below the liquid surface f) Automatic bleeder vents are closed except when the roof is floated off or landed. g) Rim vents are opened only when the roof is floated off h) Emergency roof drains are provided with slotted membrane fabric covers or their equivalent which cover ≥90 percent of the opening. Inspection, monitoring, recordkeeping, and reporting requirements.			
Drycleaning-Perchloroethylene	340-22-220	After 1/1/82, no facility shall: a) vent the entire dryer exhaust through a carbon adsorption system or equally effective control device b) emit ≤100 ppmv of VOCs from the dryer control device before dilution c) immediately repair all components leaking VOCs d) cook or treat all diatomaceous earth filters so that the residue contains ≤25 kg of VOCs/100 kg of wet waste material e) reduce VOCs from all solvent stills ≤60 kg/100 kg of wet waste material	Coin-operated facilities Facilities where an adsorber cannot be accomodated because of inadequate space Facilities with insufficient steam capacity to desorb adsorbers		N/A

STATE: OREGON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Drycleaning Perchloroethylene (cont'd)	340-22-220	f) drain all filtration cartridges in the filter housing for at least 24 hrs. before discarding g) drain all drained cartridges without emitting VOCs Compliance demonstration requirements.			
Gasoline Tank Trucks	340-22-137	Vessel must be tested annually and sustain a pressure change $\leq$750 pascals in 5 minutes when pressurized to gauge pressure of 4,500 pascals or evacuated to a guage pressure of 1,500 pascals		Approval	

NOTES:
1. Daily monitoring and monthly reporting of emissions required after 7/1/80 for sources emitting >1000 tons per year unless exempted.
2. Rule applies to each coating line including application area(s), flashoff area(s), air and forced air drier(s), and oven(s).
3. Surface coating in manufacturing rules do not apply to: airplanes painted out of doors; auto and truck refinishing; customized top coating of autos and trucks if production <35 cars/day; marine vessels painted out of doors; flatwood coating; wood furniture and cabinets; wooden doors, mouldings, and window frame; machine staining of exterior wood siding; high temp. coatings; lumber marker coatings; potable water tank inside coatings; high performance inorganic zinc coatings, air dried, applied to fabricated steel; traffic markings paint; sources whose emissions of VOC <15 lbs/day and 3 <lbs/hr; sources used exclusively for chemical or physical analysis unless source is integral part of the production process or emissions >800 lbs in any calendar month.

WASHINGTON

Chapter 173-490 WAC. Emission Standards and Controls for Sources Emitting Volatile Organic Compounds (VOC)

173-490-010	Purpose
173-490-020	Definitions
173-490-025	General applicability
173-490-030	Registration and reporting
173-490-040	Requirements
173-490-070	Schedule of control dates
173-490-071	Alternative schedule of control dates
173-490-080	Exceptions
173-490-090	New source review
173-490-120	Compliance schedules
173-490-130	Regulatory actions
173-490-135	Criminal penalties
173-490-140	Appeals
173-490-150	Variance
173-490-200	Petroleum refinery equipment leaks
173-490-201	Petroleum liquid storage in external floating roof tanks
173-490-202	Leaks from gasoline transport tanks and vapor collection systems
173-490-203	Perchloroethylene dry cleaning systems
173-490-204	Graphic arts systems
173-490-205	Surface coating of miscellaneous metal parts and products
173-490-206	Synthesized pharmaceutical products
173-490-207	Surface coating of flatwood paneling

STATE: WASHINGTON
ATTAINMENT DATE: 1987
GEOGRAPHIC COVERAGE: Portions of Clark, King, Pierce, and Snohomish Counties

GENERAL EXEMPTIONS: Excluded compounds are methane, ethane, trichlorotrifluoroethane, methylene chloride and methyl chloroform. Research and development operations provided VOC emissions are <660 lb/mo

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Auto & Light Duty Truck Surface Coating	173-490 -040(6)	Prime - 1.9 lb/gal of coating (excluding water) Topcoat - 2.8 lb/gal of coating (excluding water) Repair - 4.8 lb/gal of coating (excluding water)	Uncontrolled emissions - VOC from coater, dryer, and flashoff area <40 lb in any given 24 hr period	Approval	
Surface Coating Cans	173-490 -040(6)	Sheet basecoat and overvarnish; two piece can exterior - 2.8 lb/gal of coating (excluding water) Two and three piece can interior body spray, two piece can exterior end - 4.2 lb/gal of coating (excluding water) Side seam spray - 5.5 lb/gal of coating (excluding water) End sealing compound - 3.7 lb/gal of coating (excluding water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Metal Coils	173-490 -040(6)	2.6 lb/gal of coating (excluding water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Paper	173-490 -040(6)	2.9 lb/gal of coating (excluding water)	Same as Auto & Light Duty Truck Surface Coating	Approval	
Surface Coating Fabrics	173-490 -040(6)	Fabric - 2.9 lb/gal of coating (excluding water) Vinyl - 3.8 lb/gal of coating (excluding water)	Same as Auto & Light Duty Truck Surface Coating	Approval	

STATE: WASHINGTON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating Metal Furniture	173-490 -040(6)	3.0 lb/gal of coating (excluding water)	Uncontrolled emissions - VOC from the coater and dryer ≤40 lb in any given 24 hr. period	Approval	
Surface Coating Large Appliances	173-490 -040(6)	2.8 lb/gal of coating (excluding water)	Same as Surface Coating Metal Furniture	Approval	
Surface Coating of Insulation of Magnet Wire	173-490 -040(6)	1.7 lb/gal of coating (excluding water)	Same as Surface Coating Metal Furniture	Approval	
Petroleum Liquids in Fixed Roof Tanks	173-490 -040(2)	Meet federal standards for equipment and maintenance Floating roof or internal floating cover Maintenance of seals All openings are covered	<40,000 gallon capacity tanks Storing liquids with vp <1.5 psi or >11.1 psi	Approval	
Bulk Gasoline Plants	173-490 -040(4)	Submerged fill line and vapor balance system. System provides for control of vapor leaks during transfer Pressure relief valves set at highest possible pressure consistent with local fire and safety codes	Avg. daily throughput ≤4000 gallons Stationary tanks with capacity ≤550 gallons	Approval	
Gasoline Loading Terminals	173-490 -040(3)	Submerged or bottom loading 90% efficient vapor recovery system and a max. of 80 mg/l emissions	Avg. daily throughput ≤20,000 gallons	Approval	Provisions for alternative loading facilities

STATE: WASHINGTON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Service Stations Stage I	173-490 -040(5)	Submerged fill and 90% efficient vapor balance system VBS consists of: - transport tank - gas vapor transfer lines - storage tank - all tank vents	Throughput ≤200,000 gal annually or ≤16,670 gal/mo Storage capacity ≤10,000 gal Tank ≤1,000 gal/capacity	Approval	Additional exemption for tanks with offset fill lines installed prior to 1/1/79
Miscellaneous Refinery Sources	173-490 -040(1)	Emissions from vacuum producing systems piped to firebox, incinerator or closed refinery system. Wastewater separators: floating pontoon or fixed solid cover Process unit turnaround: VOC emissions introduced to closed refinery system, combusted by a flare or vented to a disposal system. Pressure <5.0 psig before venting	Petroleum refineries with a crude oil or feed stock capacity <9000 bbl/day Wastewater separator emitting <25 TPY	Approval	Small refinery is ≤50,000 bbl/day owned or controlled by a refiner with combined total of crude oil or feed stock of ≤137,500 bbl/day
Solvent Metal Cleaning	173-490 -040(7) (B),(10)	Cold cleaning degreasers-similar to CTG OTVD - similar to CTG Conveyorized degreasers - similar to CTG Design, safety switch, and approved work practice requirements		Approval	
Cutback Asphalt	173-490	After 6/1/81, all paving applications are prohibited during June-Sept. Submission of annual report by November 15 of the year for which it applies	When used as a penetrating prime coat on aggregate bases prior to paving; for manufacture of patching mixes; when contractor can demonstrate 8:00 a.m. temperature was less than 50°F	Approval	

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Refinery Leaks	173-490 -200	Leaks: - VOC conc. >10,000 ppm must be tagged with identification - Correct and retest leaking component as soon as is practical, but <15 days Recordkeeping and reporting are required No valves at end of pipe without a second suitable closure Monitoring and testing: - Yearly, quarterly, weekly - Immediately upon detection of leak - Within 24 hr after venting - Immediately after repair		Approval	
Surface Coating of Miscellaneous Metal Parts	173-490 -205	Process / Max. emission lb/gal (minus water): Clear coatings 4.3 Extreme performance 3.5 Air-dried 3.5 All others 3.0 Powder coatings 0.4 These limits achieved by: - Low solvent coating technology - Incineration (≥90% oxidation of VOC) - Equivalent means	<235 lb/day - Airplanes, auto refinishing, marine vessels	Approval	

STATE: WASHINGTON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Surface Coating of Flatwood Paneling	173-490 -207	Process / Max. VOC emission lb/1,000 ft² product: Printed Interior Panels — 6.0 Natural finish hardwood — 12.0 Class II finishes-hardboard — 10.0	Exterior siding, tileboard, particleboard used as a furniture component	Approval	
Pharmaceutical Manufacture Rubber Tire Manufacture		No regulations		Approval	State has certified that no sources >100 TPY exist in these source categories
Graphic Arts	173-490 -204	Solvent-containing ink: - Volatile fraction ≤25% organic solvent - ≥75% water - ≥60% (minus water) non-volatile material Emission reduction system of ≥90% efficiency Collection system such that reduction in emission of VOC: - ≥75% for rotogravure process (publication) - ≥65% for rotogravure process (packaging) - ≥60% for flexographic process Testing and monitoring procedures	<100 TYP VOCs	Approval	

STATE: WASHINGTON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments

Petroleum Liquids in Floating Roof Tanks	173-490 -201	Vessel must have:
		- rim-mounted secondary seal
		- an equally effective seal closure device
		  - no holes, tears, openings
		  - uniform and intact seal
		  - gaps >1/8 in accumulate to <1.0 in^2/ft
		- openings covered
		- annual inspections, recordkeeping
			<40,000 gal capacity
			<420,000 gal capacity and used to store crude oil and condensate prior to lease custody transfer
				Approval	

Drycleaning Perchloroethylene	173-490 -203	Vent entire dryer exhaust through carbon absorption system or equally effective control device Emit <100 ppmv VOC Immediate repair of leaks Filters - <25 kg VOC/100 kg wet waste material from diatomaceous filters - <60 kg VOC/100 kg wet waste material from solvent stills - Drain all filtration cartridges for ≥24 hrs. before discarding Inspection and testing requirements.	Coin operated facilities <25 gal/mo insufficient steam capacity to desorb adsorbers	Approval	

STATE: WASHINGTON

Category	Reg. No.	State Limit or Requirement	Exemptions	EPA Action	Comments
Gasoline Tank Trucks	173-490 -202	Tested annually for certification. Sustains pressure change <0.75 kpa in 5 min. when pressurized to 4.5 kpa or evacuated to 1.5 kpa. Repair and retest within 15 days if does not meet criteria Vapor collection system: - Pressure specifications - Conc. of gas vapors <LEL at all points 2.5 cm from potential leak source Repair and retest VCS within 15 days		Approval	

267